DEPARTMENT OF THE NAVY
NSY PUGET SOUND DET BOSTON

, –

LANDING CRAFT AIR CUSHION

SPECIFICATIONS FOR WORK TO BE ACCOMPLISHED

SPECIFICATION NUMBER: SSP:BOST–052–05

CRAFT CHARACTERISTICS

MAX. BEAM AT DESIGN WATERLINE	46 FEET 9 INCHES
EXTREME BEAM INCLUDING APPENDAGES	47 FEET 0 INCHES
DRAFT (MAX. NAVIGABLE) (FWD.)	2 FEET 7 INCHES
DRAFT (MAX. NAVIGABLE) (AFT.)	2 FEET 7 INCHES
LIGHT DISPLACEMENT	169 LONG TON
FULL LOAD DISPLACEMENT	184 LONG TON
HEIGHT OF MAST ABOVE DESIGN WATERLINE	32 FEET 4 INCHES
LENGTH OVERALL	87 FEET 11 INCHES

22 DEC 2004

DATE PREPARED

I N D E X

ITEMS THAT ARE STRUCK OUT ON THIS INDEX DO NOT APPLY TO THIS CONTRACT.

CATEGORY I. FY-05 STANDARD ITEMS APPLICABLE TO THIS JOB ORDER WITHOUT FURTHER REFERENCE

I N D E X

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I N D E X

CATEGORY II. FY-05 STANDARD ITEMS WHICH MAY BE INVOKED IN THE WORK ITEMS OF THIS JOB ORDER

I N D E X

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I N D E X

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	077–01–001
		PCN:	LC52–Y044
COAR:	26–052	CMP:	NONE
		PLANNER:	MUNROE

1. SCOPE:

1.1 Title: Hazardous Waste Produced on Naval Vessels; control

1.2 Location of Work:

1.2.1 Throughout the Ship

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Resource Conservation and Recovery Act (RCRA)

2.2 Federal Hazardous Materials Transportation Act, 49 U.S.C. 5103

2.3 Applicable Hazardous Waste Manifest Form

2.4 10 U.S.C. 7311

3. REQUIREMENTS:

3.1 Manage and dispose of all hazardous waste listed in 3.5 in accordance with 2.1 and 2.2.

3.1.1 When a Navy generator number is required by this Work Item, submit the original of 2.3 to the SUPERVISOR for assignment of Environmental Protection Agency (EPA) or delegated state environmental agency identification number.

3.1.2 Manage and transport for Navy disposal, Navy–generated hazardous waste listed in 3.5 in accordance with 2.1 and 2.2, as designated by the SUPERVISOR.

3.1.3 Submit one legible copy of 2.3 signed by the owner or operator of the disposal facility to the SUPERVISOR within 48 hours of receipt from owner or operator of disposal facility.

3.2 Complete documentation required by 2.1 and 2.2, using EPA or delegated

state environmental agency identification number in accordance with 2.4.

3.2.1 Documentation related to hazardous waste generated solely by the physical actions of Ship's Force or Navy employees (termed Navy-Generated Hazardous Waste) on board the vessel shall only bear a generator identification number issued to the Navy pursuant to applicable law. The contractor shall obtain SUPERVISOR'S concurrence with the categorization of the waste as Navy-generated before completion of the manifest. The manifest prepared shall be presented to the SUPERVISOR for completion after the hazardous waste has been identified.

3.2.2 Documentation related to hazardous waste generated solely by the physical actions of contractor personnel (termed Contractor-Generated Hazardous Waste) shall bear a generator identification number issued to the contractor pursuant to applicable law. Regardless of the presence of other material in or on the shipboard systems or structure which may have qualified a waste stream as hazardous, where the contractor performs work on a system or structure using materials (whether or not the use of such materials was specified by the Navy) which by themselves would cause the waste from such work to be a hazardous waste, documentation related to such waste shall only bear a generator number issued to the contractor.

3.2.3 Documentation related to hazardous waste generated by the combined physical actions of Navy and contractor personnel (termed Co-Generated Hazardous Waste) shall bear a generator identification number issued to the contractor pursuant to applicable law and shall also cite in the remarks block a generator identification number issued to the Navy pursuant to applicable law. When the contractor merely drains a system and such drainage creates hazardous waste or the contractor performs work on system or structure using materials which by themselves would not cause the waste from such work to be hazardous waste but such work nonetheless creates a hazardous waste, documentation related to such waste shall bear a generator identification number issued to the contractor and shall also cite in the remarks block a generator identification number issued to the Navy. The contractor shall sign the generator certification on the Uniform Hazardous Waste Manifest whenever use of the manifest is required for disposal. The contractor shall obtain SUPERVISOR's concurrence with the categorization of the wastes as co-generated before completion of the manifest. Manifests prepared shall be presented to the SUPERVISOR for completion after the hazardous waste has been identified.

3.3 If the contractor, while performing work at a Government facility, cannot obtain a separate generator identification number from the state in which the availability will be performed, the contractor shall notify the SUPERVISOR within three business days of receipt of written notification by the state. After obtaining approval of the SUPERVISOR, the contractor shall use the Navy

site generator identification number and insert in the remarks block the contractor generator identification number issued for the site where his main facilities are located.

3.4 If, for availabilities at a contractor-owned or controlled facility, the Navy cannot obtain a separate generator identification number for use at a contractor facility, the Navy shall notify the contractor within three business days of receipt of notification by the state. The contractor shall dispose of hazardous waste in accordance with 2.1, 2.2, and 3.2.3.

3.5 Hazardous waste, as identified in 2.1, expected to be produced during performance of this Job Order:

TYPE	NAVY	AMOUNT CO-GENERATED	CONTRACTOR
Acid Solutions (may include spent sulfamic, citric, chromic, nitric, sulfuric, hydrochloric, etc.)	_____	_____	_____
Ethylene Glycol (Antifreeze)	_____	_____	_____
Sodium Hydroxide	_____	_____	_____
Cleaning Solvents	_____	75 Gals ____	_____
Sodium Phosphates (Tri, Bi, or Mono)	_____	_____	_____
Fluorocarbons	_____	_____	_____
Morpholine	_____	_____	_____
Sodium Chromates	_____	_____	_____
Hydrazine	_____	_____	_____
Methyl Ethyl Ketone	_____	_____	_____
Spent Abrasive Blast Material (contaminated with a known hazardous waste)	_____	10 Tons_____	_____
Trichloroethane	_____	75 Gals_____	_____
Miscellaneous Chemicals	_____	25 Gals_____	_____

CRAFT: LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)

(Ignitable)			
Miscellaneous Chemicals (Corrosive)	_____	10 Gals_____	_____
Miscellaneous Chemicals (TCLP Toxic)	_____	_____	_____
Miscellaneous Chemicals (Reactive)	_____	10 Gals_____	_____
Oil (Hydraulic)	_____	200 Gals____	_____
Paints (Enamel, Latex, Epoxy, thinners, oil based, rubber paint, non–skid, lacquer, remover, varnishes)	_____	50 Gals_____	_____
Paints (May include lead, cadmium, or chrome)	_____	_____	_____
Paint Strippers (phenols, lead, chromium)	_____	_____	_____
Sludge (Contaminated with a known hazardous waste)	_____	100 Gals____	_____
Wool Felt (contaminated with chromium and PCB’s)	_____	_____	_____
Oily Rags	_____	300 Lbs_____	_____
Oil/Water	_____	100 Gals____	_____

3.5.1 Provide $4600.00 dollars for managing and disposing of all hazardous waste listed in 3.5. Total cost greater or less than above dollar amount when authorized will be the subject of an equitable adjustment.

3.6 Notify the SUPERVISOR at least one working day prior to shipment of hazardous waste for disposal.

3.7 Submit one legible copy, in hard copy or electronic media, of a report identifying type, amount, and disposal cost of waste listed in 3.5 that was removed during the performance of this Job Order to the SUPERVISOR.

3.7.1 The report shall include analysis or other method used to identify the waste and state whether each listed waste was hazardous (with generator assignment), non-hazardous, or did not exist.

3.7.1.1 Chemical analysis shall be accomplished by laboratories with state or EPA approved quality assurance programs.

3.7.2 The contractor shall make an effort to minimize hazardous waste generation by reducing the volume or toxicity by neutralizing, recycling, or otherwise removing it from the requirements of Subtitle C of 2.1 and include a description of such efforts in the report.

3.8 Nothing contained in this Work Item shall relieve the contractor from complying with applicable federal, state, and local laws, codes, ordinances, and regulations, including the obtaining of licenses and permits in connection with hazardous waste handling and disposal in the performance of this contract.

4. NOTES:

4.1 The waste listed in 3.5 is based on the best information available at the time of preparation of the solicitation. Hazardous waste generated during the actual performance of the work may vary in type or amount from waste listed in 3.5 which may result in renegotiation for credit or increase pursuant to Paragraph (b) of 2.4. The contractor is expected to use best management practice to identify and dispose of all hazardous waste. Some of the substances listed in 3.5 may be neutralized, recycled, or otherwise removed from the requirements of Subtitle C of 2.1. Inclusion of these substances in the waste listed in 3.5 does not preclude the contractor from taking action consistent with 2.1 to reduce or eliminate the hazardous constituents of any waste required to be disposed of under the contract in accordance with 2.2. Processes that add hazardous constituents to the bilges may require that bilge water be disposed of as a hazardous waste.

4.1.1 The types and amounts of wastes listed in 3.5 are estimates of waste to be disposed of under this contract as required by 2.4. They are not estimates of the amount of the work involved in generating that waste. The work requirements of each individual Work Item specify the actual work to be accomplished.

4.2 Hazardous wastes are determined by one or more of the following methods:

4.2.1 Chemical analysis which shows that the material characteristics of ignitability, corrosivity, reactivity, and/or toxicity (Toxicity Characteristic Leachate Procedure – TCLP) exceed the limits for that material in 40 CFR 261.20 Subpart C.

4.2.2 Reference to a Material Safety Data Sheet (MSDS), or

4.2.3 Applying knowledge of the hazardous characteristics of the waste in light of the materials or the process used.

4.3 Asbestos, bilge water, oil/water including sludge, debris and other contaminants, sludge which includes solids and sludge from ballast tanks, CHT tanks, voids, oily waste tanks, fuel ballast tanks, fuel oil tanks, skegs (West coast), PCB's (Maryland), etc., apply only in those states listing them as hazardous waste. When an availability is to be performed in a state where these items are hazardous waste, an estimate of the amount to be generated shall be included in 3.5.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	110–11–001
		PCN:	LC52–Y008
COAR:	26–052	CMP:	NONE
		PLANNER:	FLAHERTY

1. SCOPE:

1.1 Title: Underwater Hull Plating; clean, inspect and repair

1.2 Location of Work:

1.2.1 Underwater Hull Plating

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 S9086–VD–STM–010/020/030, Naval Ship’s Technical Manual, Chapter 631

2.3 S6360–AE–MMA–010 Rev 3, Landing Craft, Air Cushion (LCAC) Corrosion Control Manual

2.4 S9100–AC–MMA–010 Rev 3, Structural Maintenance and Repair Manual For Landing Craft, Air Cushion (LCAC)

2.5 111–5749144 Rev M, Plating Installation, Wet Deck

2.6 111–5749145 Rev P, Plating Details, Wet Deck

2.7 111–5749140 Rev L, Bow Plating Assembly

2.8 111–5749142 Rev K, Stern Plating Assembly

2.9 111–5749147 Rev B, Extrusion, Hat

2.10 161–6386242 Rev –, Landing Rail – Welded

3. REQUIREMENTS:

3.1 Clean the exterior surfaces of the underwater hull. Accomplish the requirements of Paragraphs 631–5.5 and 631–5.5.1 of 2.2 using the hydroblast method with a maximum pressure of 1500 PSI, prior to inspection.

(I)(V) "VISUAL INSPECTION"

3.2 Accomplish a visual inspection of entire exterior underwater hull plating including landing rails and extrusions (hats) for cracks, erosion, pitting, deterioration, deformation and damage. Use 2.3 through 2.10 for guidance during inspection.

3.2.1 Submit one legible copy, in hard copy or electronic media of a report listing results of the requirements of 3.2 to the SUPERVISOR showing locations of deficiencies and recommendations for repairs.

3.3 Accomplish found repairs by removing existing and installing new, a total of (35) square feet of plate and weld repair a total of (10) linear feet of defective welds and install a total of (25) linear feet of new hat sections, and clad weld a total of (2) square feet to equal a total of (60) locations, as determined by inspection of 3.2 and as authorized by the SUPERVISOR.

3.3.1 Exact areas of repairs shall be designated by the SUPERVISOR.

3.3.2 The minimum size for insert plates shall be one square foot in area.

3.3.3 Do not cut any frames or main structural members without prior approval of the SUPERVISOR.

3.3.4 Replacement material shall be in accordance with 2.5 through 2.10.

3.4 Accomplish the requirements of 009-12 of 2.1, including Table 4, Column C, Lines one through 7.

3.4.1 Accomplish Non-Destructive Testing in accordance with Line 10.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	110–21–001
		PCN:	LC52–Y098
COAR:	26–052	CMP:	NONE
		PLANNER:	FLAHERTY SULLIVAN

1. SCOPE:

1.1 Title: Hull Plating and Framing; repair

1.2 Location of Work:

1.2.1 Wet Decks

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 802–5748802 Rev K, Plan View of Each Level, Deck & Platform

2.3 101–5749137 Rev AK, Flotation Compartment Assembly

2.4 101–5749968 Rev M, Details–Flotation Compartment

2.5 111–5749144 Rev M, Plating Installation, Wet Deck

2.6 111–5749145 Rev P, Plating Details Wet Deck

2.7 111–5749147 Rev B, Extrusion, Hat

2.8 121–5749084 Rev E, Bulkhead Instl, Long, BL 12’–9"–Flotation Compartment

2.9 121–5749075 Rev H, Bulkhead Instl, Long, BL 7"–6"–Flotation Compartment

2.10 121–5749062 Rev E, Bulkhead Instl, Long, BL 0.00"–Flotation Compartment

2.11 122–5749114 Rev E, Frame 5 Installation–Sta 18’–10"

2.12 122–5749117 Rev D, Frame 6 Installation–Sta 23’–4" Flotation Compartment

2.13 122-5749120 Rev E, Frame 7 and Frame 9 Installation

2.14 122-5749970 Rev F, Frame 8 Installation

2.15 S9100-AC-MMA-010 Rev 3, Structural Maintenance and Repair Manual for Landing Craft, Air Cushion (LCAC)

3. REQUIREMENTS:

3.1 Accomplish a visual inspection of wet deck compartment surfaces including decks, bulkheads, overheads and structural stiffeners, for structural discrepancies, corrosion, erosion, pits, deformation, defective welds, and cracks, noting exact locations and quantities of discrepancies found using 2.2 through 2.15 for guidance.

3.1.1 Submit one legible copy, in hard copy or electronic media, of a report listing the requirements of 3.1, to the SUPERVISOR, noting exact locations of discrepancies and quantities found and recommendations for repairs.

3.2 Accomplish known repairs by removing existing defective and installing new, a total of 135 square feet of wet deck (hull) plating, including related hat sections, 20 linear feet of stiffeners, a total of 11 square feet of clad weld repair (to equal a total of 136 locations),and a total of 20 square feet of plug weld repair (to equal a total of 150 locations) at locations listed below. Areas of known repairs are detailed in 3.2.1 through 3.2.19. Accomplish in accordance with 2.2 through 2.15.

3.2.1 Remove existing defective and install new, a total of 4 square feet of deck plating (26" x 16"), in compartment 2-5-4-Q. Area to be repaired is located outboard of inboard longitudinal bulkhead.

3.2.2 Remove existing defective and install new, a total of 34 square feet of deck plating in compartment 2-6-2-A. The first section to be repaired is a total of 8 square feet of deck plating (48" x 20"). Area to be repaired is located between frame 6 and frame 7, and from inboard longitudinal bulkhead, outboard for a length of 20 inches. The second area to be repaired is a total of 26 square feet (48’ x 78"). Area to be repaired is located between frame 6 and frame 7, and from 55 inches outboard of inboard longitudinal bulkhead, outboard for a length of 133 inches.

3.2.3 Remove existing defective and install new, a total of 15 square feet of deck plating (48" x 44") in compartment 2-7-2-V. Area to be repaired is located between frame 7 and frame 8, and from outboard longitudinal bulkhead inboard for a length of 44 inches.

3.2.4 Remove existing defective and install new, a total of 80 square

feet of deck plating in compartment 2–8–1–P and 2–8–2–P, (Transverse Airway). Areas to be repaired are located between frame 8 and frame 9, and from outboard longitudinal bulkhead in compartment 2–8–1–P to outboard longitudinal bulkhead in compartment 2–8–2–P.

3.2.5 Clad weld repair a total of 2 square feet of defective deck plating in compartment 2–7–1–V to equal a total of 25 locations.

3.2.6 Clad weld repair a total of 2 square feet of defective deck plating in compartment 2–9–2–A to equal a total of 25 locations. Plug weld repair a total of 2 square feet of defective deck plating to equal a total of 25 locations.

3.2.7 Clad weld repair a total of 2 square feet of defective deck plating in compartment 2–11–2–Q, to equal a total of 20 locations. Plug weld repair a total of 2 square feet to equal a total of 20 locations.

3.2.8 Clad weld repair a total of One square foot of defective deck plating in compartment 2–11–4–Q, to equal a total of 12 locations.

3.2.9 Clad weld repair a total of One square foot of defective deck plating in compartment 2–12–3–V, to equal a total of 5 locations.

3.2.10 Clad weld repair a total of 2 square feet of defective deck plating in compartment 2–16–4–F, to equal a total of 24 locations.

3.2.11 Clad weld repair a total of One square foot of defective deck plating in compartment 2–11–3–Q, to equal a total of 25 locations.

3.2.12 Plug weld repair a total of 2 square feet of defective deck plating in compartment 2–6–1–A, to equal a total of 15 locations.

3.2.13 Plug weld repair a total of 6 holes in plating in compartment 2–8A–3–V.

3.2.14 Plug weld repair a total of 3 holes in plating in compartment 2–8A–4–V.

3.2.15 Plug weld repair a total of 2 square feet of defective deck plating in compartment 2–9–1–A, to equal a total of 15 locations.

3.2.16 Plug weld repair a total of 2 square feet of defective deck plating in compartment 2–10–4–Q, to equal a total of 25 locations.

3.2.17 Plug weld repair a total of One square foot of defective deck plating in compartment 2–12–2–V, to equal a total of 10 locations.

3.2.18 Plug weld repair a total of One square foot of defective deck

plating in compartment 2-13-4-V, to equal a total of 10 locations.

3.2.19 Plug weld repair a total of 2 square feet of defective deck plating in compartment 2-16-1-V, to equal a total of 10 locations.

3.3 Accomplish additional repairs by removing existing defective and installing new a total of 50 square feet of plating, 20 linear feet of structural stiffeners and hats, clad weld repair a total of 5 square feet of defective plating, to equal a total of 50 locations, and 15 linear feet of weld repair as determined by the inspection of 3.1 and as designated by the SUPERVISOR.

3.4 The minimum size for insert plates shall be one square foot.

3.4.1 Do not cut any frames or main structural members without prior approval of the SUPERVISOR.

3.4.2 Chip and grind surfaces flush and smooth in way of removals.

3.4.3 Replacement material shall be in accordance with 2.2 through 2.15.

3.5 Accomplish the requirements of 009-12 of 2.1, including Table 4, Column C, Lines One through 7.

3.5.1 Accomplish Non-Destructive Testing in accordance with Line 10.

(V) (G) "VACUUM TEST"

3.6 After completion of all structural repairs, accomplish a vacuum test of voids and spaces disturbed by repairs in accordance with Chapter 5 of 2.15.

3.6.1 Submit one legible copy, in hard copy or electronic media, of a report listing the results of 3.6, to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	110–21–002
		PCN:	LC52–Y097
COAR:	26–052	CMP:	NONE
		PLANNER:	FLAHERTY SULLIVAN

1. SCOPE:

1.1 Title: Sidewall Plating; repair

1.2 Location of Work:

1.2.1 Sidewall Plating, Starboard

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 111–5749138 Rev F, Sidewall Plating Assy, Fr. 3 To Fr 18

2.3 111–5749139 Rev F, Sidewall Plating Details

2.4 584–5749193 Rev F, Ftg Instl, Stowage–Craft restraint

2.5 584–5749297 Rev J, Stowage Fitting, Craft Restraint

3. REQUIREMENTS:

3.1 Accomplish known repairs to sidewall plating as detailed in paragraphs 3.1.1 and 3.1.2 in accordance with 2.2 through 2.5.

3.1.1 Remove existing damaged and install new, a total of 6 square feet (5’ x 14") of sidewall plating at location listed in 1.2.1. Area to be repaired is located from 3 inches aft of frame 10 to 5 feet forward of frame 10.

3.1.2 Remove existing damaged and install new, a total of 6 square feet (52" x 14") of sidewall plating at location listed in 1.2.1. Area to be repaired is located from frame 7.5 to 52 inches forward of frame 7.5.

3.2 Accomplish the requirements of 009–12 of 2.1, including Table 4, Column C, Lines One through 7.

3.2.1 Accomplish Non–Destructive testing in accordance with Line 10.

CRAFT: LANDING CRAFT AIR CUSHION
FIFTY-TWO (LCAC-52)

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	114–11–001
		PCN:	LC52–Y011
COAR:	26–052	CMP:	NONE
		PLANNER:	FLAHERTY SULLIVAN

1. SCOPE:

    1.1 Title: Fendering System; repair

    1.2 Location of Work:

        1.2.1 Fendering System, Starboard

        1.2.2 Fendering System, Port

    1.3 Identification:

        1.3.1 Not Applicable

2. REFERENCES:

    2.1 Standard Items

    2.2 114–5749149 Rev E, Fendering Details

    2.3 114–5749150 Rev F, LCAC Fender

    2.4 114–5749563 Rev –, Extrusion–Tee

    2.5 114–5749564 Rev B, Extrusion Clamping Bar

    2.6 114–5749565 Rev –, Extrusion Backplate

    2.7 114–5749601 Rev D, Clamping Bar Details

    2.8 114–5749602 Rev D, Backplate Assy

    2.9 114–6386239 Rev F, Fendering Installation

    2.10 114–6386381 Rev A, Extrusion–Channel

    2.11 S9100–AC–MAN–010 Rev 3, Structural Maintenance and Repair Manual for Landing Craft Air Cushion

3. REQUIREMENTS:

3.1 Accomplish known repairs to fendering system as detailed in paragraphs 3.1.1 through 3.1.5 at locations listed in 1.2 in accordance with 2.2 through 2.11.

3.1.1 Remove existing damaged and install new, a total of 3 square feet (26" x 12") of fender crushbox underside plating at location listed in 1.2.1. Area to be repaired is located from frame 16 inches aft of frame 15 to 10 inches forward of frame 15.

3.1.2 Remove existing damaged and install new, a total of 3 square feet (3' x 9") of fender crushbox underside plating at location listed in 1.2.1. Area to be repaired is located from frame 1 1/2 to frame 2 1/2.

3.1.3 Remove existing damaged and install new, a total of 3 square feet (8 1/2" x 32") of fender crushbox topside plating at location listed in 1.2.1. Area to be repaired is located from 8 inches forward of frame 1, aft for a length of 32 inches.

3.1.4 Remove existing damaged and install new, a total of 2 square feet (18" x 9') of fender crushbox topside plating at location listed in 1.2.2. Area to be repaired is located from frame 5 1/2, forward for a length of 18 inches.

3.1.5 Remove existing damaged and install new, QTY 6 rubber fender sections, (part number 001 of 2.3), at locations listed in 1.2.

3.1.5.1 Exact locations shall be designated by the SUPERVISOR.

3.2 Accomplish the requirements of 009-12 of 2.1, including Table 4, Column(s) C, Lines One through 7.

3.2.1 Accomplish non-destructive testing in accordance with Line 10.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	120–11–001
		PCN:	LC52–Y099
COAR:	26–052	CMP:	NONE
		PLANNER:	SULLIVAN

1. SCOPE:

1.1 Title: Machinery Deck; repair

1.2 Location of Work:

1.2.1 Machinery Deck Port and Starboard in way of Engine and Lift Fan Modules

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 151–5749254 Rev AJ, Struct Assy & Instl Eng Compt

2.3 S9200–A6–MMA–010 Rev 4, Operation and Maintenance Manual for Landing Craft, Air Cushion (LCAC) Propulsion System

2.4 S9261–A2–MMA–B10 CHG A, Fuel Service and Transfer System

2.5 S9502–AA–MMA–010 Rev 2 CHG C, TF40B Auxiliary Systems Manual

2.6 S9234–ES–MMA–010 CHG D, Volume I, Model TF40B Operation and Maintenance Manual for Landing Craft Air Cushion Main Propulsion Engine

2.7 S9234–ES–MMA–020 CHG A, Volume II, Model TF40B Operation and Maintenance Manual for Landing Craft Air Cushion Main Propulsion Engine

2.8 S9234–ES–MMA–030 CHG A, Volume III, Model TF40B Operation and Maintenance Manual for Landing Craft Air Cushion Main Propulsion Engine

2.9 S9248–AA–MMA–010 Rev 2 CHG B, Operation and Maintenance Manual for Landing Craft, Air Cushion (LCAC) Lift Systems Fans and Ducting

2.10 S9568–AL–MMA–010 Rev 3 CHG A, Operation and Maintenance Manual for Landing Craft, Air Cushion (LCAC) Bow Thruster Assembly

2.11 S9311–A3–MMA–010 CHG E, Operation and Maintenance Manual for Auxiliary Power Unit (APU) System/Installation

2.12 S9246–AA–MMA–010 Rev 2, Operation and Maintenance Manual for Landing Craft, Air Cushion (LCAC) Propeller Duct Shrouds and Support Structures

2.13 S9243–A2–MMA–010 Rev 1 CHG D, Operation and Maintenance Manual for Ancillary Propeller Equipment

2.14 S9510–AW–MMA–010 CHG B, Operation and Maintenance Manual for Landing Craft, Air Cushion (LCAC) Cold Weather Kit

2.15 S9245–BA–MMA–010 Rev 1 CHG D, Controllable Pitch Propeller Manual

2.16 S9260–AF–MMA–010 Rev 3, Maintenance Manual for Landing Craft, Air Cushion (LCAC) Propulsion Lubricating Oil System

2.17 248–5749540 Rev AD, Volute Final Assembly

2.18 Systems and Specifications, Steel Structures Painting Manual, Volume 2

2.19 S6360–AE–MMA–010 Rev 3, Landing Craft, Air Cushion (LCAC) Corrosion Control Manual

2.20 S9100–AC–MMA–010 Rev 2 CHG B, Structural Maintenance and Repair Manual for Landing Craft, Air Cushion (LCAC)

2.21 T9074–AS–GIB–010/271, Requirements for Non–Destructive Testing Methods

2.22 MIL–STD–2035, Requirements for Non–Destructive Testing Acceptance Criteria

2.23 131–5749211 Rev AE, Machinery Deck Assy

2.24 131–5749213 Rev T, Machinery Deck Details

2.25 259–5750008 Rev J, Collector Assembly, Exhaust

2.26 612–5750359 Rev G, Green Water Fence Installation

2.27 248–5749539 Rev L, Lift System Installation

3. REQUIREMENTS:

3.1 Disconnect and roll back electrical cables in way of repairs associated with this work item.

3.1.1 Reinstall cables (original) after completion of repairs utilizing new penetration seals.

3.2 Drain and dispose of fluids from the following systems:

3.2.1 Propeller lubricating systems.

3.2.2 Propeller, rudder and bow thruster hydraulic systems.

3.2.3 Main propulsion engines.

3.2.4 Auxiliary power units.

3.2.5 Main engine gear boxes and forward and aft offset gear boxes and lubricating systems.

3.3 Accomplish the requirements of 009–09 of 2.1 for fabricating and installing fixtures to eliminate structural distortion of the port and starboard engine modules while accomplishing structural repairs to each module.

3.4 Remove port and starboard engine modules, lift fan assemblies, bow thrusters, main engine gear boxes, forward and aft offset gear boxes, APU units and port and starboard propellers in accordance with 2.2 through 2.17.

3.4.1 Fabricate and install fixtures from accepted procedure in 3.3 in each engine module.

3.4.1.1 Fixtures installed in 3.4.1 for filter bays shall be installed prior to unbolting and removal of each engine module and shall be installed until each engine module is completely reinstalled and aligned.

3.4.2 Equipment removed in 3.4 shall be turned over to the SUPERVISOR.

3.5 Solvent clean deck areas in way of removed equipment listed in 3.4. Accomplish the requirements of Surface Preparation Specification, SSPC–SP–1 of 2.18.

3.6 Accomplish a visual inspection of machinery deck plating below engine and lift fan modules for erosion, corrosion, pitting, deformation and damage during overhaul period using 2.19 and 2.20 for guidance.

3.6.1 Submit one legible copy, in hard copy or electronic media, of a report listing the results of the requirements of 3.6 to the SUPERVISOR, showing exact locations of deficiencies and recommendations for repairs.

3.7 Accomplish liquid penetrant tests on suspect test areas as designated by the SUPERVISOR, as a result of visual inspection reports of 3.6.1, in accordance with chapter 5 of 2.20 and 2.21.

3.7.1 The accept and rejection requirements shall be in accordance with 2.22.

3.7.2 Submit one legible copy, in hard copy or electronic media, of a report listing the results of the requirements of 3.7 with recommended remedial action to the SUPERVISOR.

3.8 Remove defective and install new, a total of 280 square feet of machinery deck plating, 60 linear feet of structural stiffeners, reweld 15 linear feet of defective butt welds and seams and clad weld 15 square feet of plating as authorized by the SUPERVISOR as a result of 3.6.1 and 3.7.2.

3.8.1 Exact areas of replacements shall be designated by the SUPERVISOR.

3.8.2 The minimum size for insert plates shall be one square foot in area.

3.8.3 Do not cut any frames or main structural members without prior approval of the SUPERVISOR.

3.8.4 Replacement material shall be in accordance with 2.23 and 2.24.

3.8.5 Accomplish the requirements of 009–12 of 2.1, including Table 4, Column C, Lines One through 7.

3.8.5.1 Accomplish Non–Destructive Testing in accordance with Line 10.

3.8.5.2 Submit one legible copy, in hard copy or electronic media, of a report listing the results of the requirements of 3.8.5.1 to the SUPERVISOR.

3.9 Reinstall equipment removed in 3.4 including main propulsion engines and auxiliary power units in accordance with 2.2, 2.17 and 2.27. To facilitate the reinstallation of the engine and volute modules, plug weld existing bolting holes used for anchoring the modules not disturbed by installations noted in paragraph 3.8. Layout, drill and tap new anchoring holes during the reinstallation process of the modules after all final alignments are obtained in accordance with 2.2 through 2.17.

3.9.1 Prior to installation of main engines, remove and install new tadpole seals in exhaust collector assemblies in accordance with 2.25.

(I) (G) "SURFACE PREPARATION"

3.9.2 Prior to reinstalling port and starboard engine modules and port and starboard volute assemblies, accomplish the requirements of 009−32 of 2.1 including Table 2, Line 16, Columns A through D for surface preparation and application of an epoxy coating system on each module and volute underside surfaces with the exception that an additional, final coat of Formula 151 shall be applied to each module and volute assembly underside surfaces to a minimum dry film thickness of 2 − 4 mils.

3.9.3 Fill the systems and equipment drained in 3.2 to the fill marks with new oil conforming to the requirements of 2.3 through 2.17.

3.9.4 Prior to reinstalling port and starboard engine modules, temporarily remove sections of each wave fence aft of the modules to facilitate reinstallation due to deck penetration modifications being accomplished in Work Item 130−80−001. Reinstall temporarily removed sections of each wave fence after each module is reinstalled, using 2.26 for guidance.

3.9.4.1 Accomplish the requirements of 009−12 of 2.1, including Table 4, Column C, Lines One through 7.

3.9.5 Install sealant on all flanges and joints of the lift fan volutes in accordance with 2.27.

3.10 Align installed equipment in 3.9 in accordance with 2.2 through 2.17.

3.10.1 Submit one legible copy, in hard copy or electronic media, of a report listing the results of the requirements of 3.10 to the SUPERVISOR.

3.11 Remove fixtures installed in 3.4.1 from each engine module.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

CRAFT: LANDING CRAFT AIR CUSHION
FIFTY–TWO (LCAC–52)

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	123–11–001
		PCN:	LC52–Y067
COAR:	26–052	CMP:	NONE
		PLANNER:	DEFOSSE

1. SCOPE:

1.1 Title: Fuel Oil Tank Flame Arrestors and Housing Assemblies; repair and replace

1.2 Location of Work:

1.2.1 Main Deck, Frame 6, Port & Starboard

1.2.2 Main Deck, Frame 17, Starboard

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 541–5749461 Rev N, Vent & Overflow Instl, Fuel Tank

2.3 541–5749481 Rev R, Duct Assys and Details, Fuel System

2.4 541–5749487 Rev E, Flame Arrestor, Fuel Vent System

2.5 S6240–A9–MAN–010 Rev 2, Welding and Inspection Manual for Landing Craft Air Cushion

3. REQUIREMENTS:

3.1 Remove existing and install new Qty (3) flame arrestor housing assemblies with associated hardware listed below to the fuel tank vent piping located in 1.2.1 and 1.2.2, in accordance with 2.2, 2.3 and the following:

3.1.1 Qty (2) existing flame arrestors (no. 85 on 2.3), located on main deck, frame 6, port, and frame 17, starboard, shall be removed, cleaned, saved and reused with new housing assemblies.

3.1.2 Qty (One) existing flame arrestor (no. 85 on 2.3), located on main deck, frame 6, starboard, shall be replaced and the new flame arrestor shall conform to 2.4.

3.1.3 Qty (3) housing assemblies (no. 125 on 2.3).

3.1.4 Qty (6) washers (no. 102 on 2.3).

3.1.5 Qty (6) nuts (no. 103 on 2.3).

3.1.6 Qty (6) screws (no. 133 on 2.3).

3.1.7 Accomplish the requirements of 2.5 and 009-12 of 2.1, including Table 1, Column A, Lines One through 10.

(V) (G) "OPERATIONAL TEST"

3.2 Accomplish an operational test of the newly modified fuel oil vent piping system under system operating pressure. Allowable leakage at new and disturbed joints: None.

3.2.1 Submit one legible copy, in hard copy or electronic media of a report listing results of the requirements of 3.2 to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)	ITEM NO:	123-11-002
		PCN:	LC52-Y100
COAR:	26-052	CMP:	NONE
		PLANNER:	SULLIVAN

1. SCOPE:

1.1 Title: Flame Arrestor Bracket; repair

1.2 Location of Work:

1.2.1 Main Deck, Frame 17 Starboard

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 541-5748992 Rev G, Bracket Assys, and Details Fuel System

2.3 541-5749461 Rev N, Vent & Overflow Instl, Fuel Tank

3. REQUIREMENTS:

3.1 Repair by welding 8 linear inches of cracks in existing support plate shown as find number 61 of 2.2 at location shown on 2.3, attached to tank vent and fod structural support stanchion.

3.1.1 Accomplish the requirements of 009-12 of 2.1, including Table 4, Column C, Lines One through 7.

3.1.2 Accomplish nondestructive testing in accordance with Line 10.

3.1.3 Accomplish the requirements of 009-32 of 2.1 for new and disturbed surfaces.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	130–80–001
		PCN:	LC52–Y053
COAR:	26–052	CMP:	NONE
		PLANNER:	MUNROE

1. SCOPE:

1.1 Title: LCAC CraftAlt–0237D, Machinery Module Deck Penetrations; accomplish

1.2 Location of Work:

1.2.1 Machinery Decks and Engine Module Decks, Frames 11–15, Port and Starboard

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 151–6731644 Rev B, Mach’y Dk and Mach’y Module Dk Mods Raised Coamings Mach Mod Dk

2.3 505–6734389 Rev –, Miscellaneous Piping Mods Incid To Craftalt–237D

2.4 131–5749211 Rev AE, Machinery Deck Assy

2.5 151–5749260 Rev K, Floor Assembly Engine Compartment

2.6 DOD–STD–2003, Electric Plant Installation, Standard Methods for Surface Ships and Submarines

2.7 LCAC CRAFTALT–0237D REV 01, Machinery Module Deck Penetrations

3. REQUIREMENTS:

3.1 Accomplish removals, modifications and installations incidental to LCAC1 Class CraftAlt–0237D Rev 01, Mach Module Deck Penetrations, at locations listed in 1.2.1 in accordance with 2.2 and 2.3 and using 2.4, 2.5, and 2.7 for guidance.

3.1.1 Disconnect electrically and mechanically, and pull back cables necessary to accomplish the requirements of this work item. Record and retain electrical hook–up data and MCT insert cable size and location.

3.1.2 Disconnect and remove piping necessary to accomplish the

requirements of this work item. Matchmark and retain material required for reinstallation in accordance with 2.3.

3.1.3 Install new multi cable transits and piping penetrations in accordance with 2.2.

3.1.4 Accomplish the requirements of 009-12 of 2.1, including Table 4, Columns C and D, Lines One through 7.

3.1.4.1 Accomplish Non-Destructive testing in accordance with Line 10.

3.2 Install cabling and piping removed in 3.1 and new rubber inserts and new MCT inserts, using retained hook-up data and material of 3.1.1 and 3.1.2, 2.2, 2.3 and using 2.6 for guidance. Install new banding as required to secure cabling.

3.2.1 Clean and flush the new and disturbed sections of piping affected by this work item, with hot fresh water for one hour. The temperature of the water shall not drop below 110 degrees Fahrenheit at the outlet of the flushed pipes.

(I) (G) "HYDROSTATIC TEST"

3.3 Accomplish the requirements of 009-71 of 2.1, for piping systems modified by this work item, using clean, fresh water at 135% of system operating pressure, using 2.3 for guidance.

3.3.1 Remove fluid upon completion of hydrostatic tests. Allowable residual fluid: None.

3.3.2 Submit one legible copy, in hard copy or electronic media, of a report listing results of the requirements of 3.3 to the SUPERVISOR.

(V) (G) "OPERATIONAL TEST"

3.4 Accomplish an operational test of the piping systems modified by this work item, under system operating pressure and reconnected electrical equipment affected by this work item.

3.4.1 Allowable leakage at new and disturbed joints: None.

3.4.2 Submit one legible copy, in hard copy or electronic media, of a report listing results of the requirements of 3.4 to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	150–11–001
		PCN:	LC52–Y101
COAR:	26–052	CMP:	NONE
		PLANNER:	SULLIVAN

1. SCOPE:

1.1 Title: Engine Modules; inspect and repair

1.2 Location of Work:

1.2.1 Port and Starboard Engine Modules

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 151–5749254 Rev AJ, Structural Assy & Instl – Engine Compartment

3. REQUIREMENTS:

3.1 Accomplish a visual inspection of port and starboard engine module plating and stiffeners, interior and exterior, for structural damage, erosion, corrosion, deformation, cracks, welding deficiencies and discrepancies, using 2.2 for guidance.

3.1.1 Submit one legible copy, in hard copy or electronic media, of a report listing the results of the requirements of 3.1 to the SUPERVISOR showing exact locations of deficiencies and recommendations for repairs.

3.2 Accomplish repairs by removing existing defective and installing new a total of (30) square feet of plating, (15) linear feet of structural stiffeners, and clad welding a total of (4) square feet of plating (to equal a total of 40 locations) in port and starboard engine modules, as authorized by the SUPERVISOR as a result of 3.1.1.

3.2.1 Exact areas of replacement shall be designated by the SUPERVISOR.

3.2.2 The minimum size for insert plates shall be one square foot in area.

3.2.3 Do not cut any frames or main structural members without prior

approval of the SUPERVISOR.

3.2.4 Replacement material shall be in accordance with 2.2.

3.3 Accomplish the requirements of 009-12 of 2.1, including Table 4, Column C, Lines One through 7.

3.3.1 Accomplish Non-Destructive Testing in accordance with Line 10.

3.3.2 Submit one legible copy, in hard copy or electronic media, of a report listing the results of the requirements of 3.3.1 to the SUPERVISOR.

4. NOTES:

4.1 Accomplish the requirements of this work item in conjunction with work item 120-11-001, Machinery Deck; repair.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	150–11–002
		PCN:	LC52–Y103
COAR:	26–052	CMP:	NONE
		PLANNER:	FLAHERTY

1. SCOPE:

1.1 Title: Command Module; repair

1.2 Location of Work:

1.2.1 Interior Command Module

1.2.2 Exterior Command Module, Starboard

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 151–5749239 Rev R, Sidewall Assembly, Inbd–Control Station Module

2.3 151–5749240 Rev G, Sidewall Assembly, Outbd–Control Station Module

2.4 151–5749241 Rev G, Bhd Assy, Fwd–Control Sta Module

2.5 131–5749203 Rev U, Main Deck Assy

2.6 131–5749213 Rev T, Machinery Deck Details

2.7 151–5749245 Rev J, Inbd Side Wall, Details–Control Module

2.8 151–5749246 Rev E, Outbd Sidewall, Details–Control Station Module

2.9 151–5749247 Rev C, Fwd Bhd Details Control Sta Module

2.10 S9100–AC–MMA–010 Rev 3, Structural Maintenance and Repair Manual for Landing Craft, Air Cushion

2.11 625–5749689 Rev J, Mirror, Rearview–Installation

3. REQUIREMENTS:

3.1 Remove existing defective and install new, a total of 30 square feet of

deck plating, including related deck stiffeners at location listed in 1.2.1. Area to be repaired is located from inboard of outboard and inboard longitudinal bulkheads, between frames 3 and frame 4. Accomplish in accordance with 2.2 through 2.10.

3.2 Install where missing or damaged at location listed in 1.2.2, Qty One,(1) mirror complete with braces and hardware in accordance with 2.11.

3.3 Accomplish the requirements of 009-12 of 2.1, including Table 4, Column C, Lines One through 7.

3.3.1 Accomplish nondestructive testing in accordance with Line 10.

3.4 Accomplish the requirements of 009-32 of 2.1 for new and disturbed surfaces.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	150–11–003
		PCN:	LC52–Y102
COAR:	26–052	CMP:	NONE
		PLANNER:	FLAHERTY SULLIVAN

1. SCOPE:

1.1 Title: Port Engine Module Exhaust Deflector; replace

1.2 Location of Work:

1.2.1 Port Engine Module

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 259–5750006 Rev Y, Exhaust Installation, Engine

2.3 151–5749254 Rev AJ, Structural Assy & Instl – Engine Compartment

2.4 151–5749256 Rev E, Sidewall Assy, Outboard – Engine Compartment

3. REQUIREMENTS:

3.1 Remove existing damaged and install new, QTY One (1) exhaust deflector assembly (Find No. 14 of 2.2) at location listed in 1.2.1. Deflector to be repaired is located at frame 13, on outboard sidewall plating. Accomplish in accordance with 2.2 through 2.4.

3.1.1 New exhaust deflector shall be installed using new hardware.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	164–85–001
		PCN:	BOST–0001
COAR:	26–052	CMP:	NONE
		PLANNER:	SULLIVAN

1. SCOPE:

1.1 Title: LCAC1 Class AER–0428A, Maintenance Supports for Engine Armor Panels; accomplish

1.2 Location of Work:

1.2.1 Outboard Sides of Port and Starboard Engine Modules

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 LCAC AER–0428A, Maintenance Supports for Engine Armor Panels

3. REQUIREMENTS:

3.1 Accomplish removals, modifications and installations incidental to LCAC1 Class AER–0428A, Titled: Maintenance Supports for Engine Armor Panels, at locations listed in 1.2 in accordance with 2.2.

3.2 Accomplish the requirements of 009–12 of 2.1, including Table 4, Column C, Lines One through 7.

3.2.1 Accomplish Non–Destructive Testing in accordance with Line 10.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	167–85–001
		PCN:	BOST–0000
COAR:	26–052	CMP:	NONE
		PLANNER:	SULLIVAN

1. SCOPE:

1.1 Title: LCAC AER–0249A, Rev 02, Engine Access Hatch Handles, Install; accomplish

1.2 Location of Work:

1.2.1 Top of Engine Modules, Port and Starboard

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 LCAC AER–0249A Rev 02, Engine Access Hatch Handles, Install

3. REQUIREMENTS:

3.1 Accomplish removals, modifications and installations incidental to LCAC AER–0249A, Rev 02, Titled: Engine Access Hatch Handles, Install, at locations listed in 1.2 in accordance with 2.2.

3.2 Accomplish the requirements of 009–12 of 2.1, including Table 4, Column C, Lines One through 7.

3.2.1 Accomplish Non–Destructive Testing in accordance with Line 10.

3.3 Accomplish the requirements of 009–32 of 2.1 for new and disturbed surfaces.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)	ITEM NO:	248-11-001
		PCN:	LC52-Y091
COAR:	26-052	CMP:	NONE
		PLANNER:	PFANTZ SULLIVAN

1. SCOPE:

1.1 Title: Starboard Cushion Vanes Repair of; accomplish

1.2 Location of Work:

1.2.1 Frame 7, Underwater Hull

1.3 Identification:

1.3.1 Cushion Vanes Starboard Fore and Aft

2. REFERENCES:

2.1 Standard Items

2.2 248-5749558 Rev H, Vane Assembly and Installation

2.3 248-5749597 Rev T, Vane Details

3. REQUIREMENTS:

3.1 Accomplish a visual inspection of the starboard cushion vane assemblies at location listed in 1.2.1 for corrosion, erosion, cracking, and alignment discrepancies, using 2.2 and 2.3 for guidance.

3.2 Submit one legible copy, in hard copy or electronic media, of a report listing the results of the requirements of 3.1 to the SUPERVISOR showing exact locations of deficiencies and recommendations for repairs.

3.3 Accomplish repairs as authorized by the SUPERVISOR by disassembling starboard cushion vane assemblies, including bearings, flanges and linkage, clean, lubricate and reassemble and align using new shims, gaskets and associated hardware in accordance with 2.2 and 2.3.

3.3.1 Accomplish repairs to the leading edges of vane assemblies by installing new tape from end to end in accordance with 2.3.

3.4 Accomplish operational test of starboard cushion vanes to verify proper allignment.

3.4.1 Submit one legible copy, in hard copy or electronic media, of a report listing results of the requirements of 3.4 to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	248–12–002
		PCN:	LC52–Y090
COAR:	26–052	CMP:	NONE
		PLANNER:	SULLIVAN

1. SCOPE:

1.1 Title: Port Cushion Vanes Repair of; accomplish

1.2 Location of Work:

1.2.1 Frame 7, Underwater Hull

1.3 Identification:

1.3.1 Cushion Vanes Port Fore and Aft

2. REFERENCES:

2.1 Standard Items

2.2 248–5749558 Rev H, Vane Assembly and Installation

2.3 248–5749597 Rev T, Vane Details

3. REQUIREMENTS:

3.1 Accomplish a visual inspection of the port cushion vane assemblies at location listed in 1.2.1 for corrosion, erosion, cracking, and alignment discrepancies, using 2.2 and 2.3 for guidance.

3.2 Submit one legible copy, in hard copy or electronic media, of a report listing the results of the requirements of 3.1 to the SUPERVISOR showing exact locations of deficiencies and recommendations for repairs.

3.3 Accomplish repairs as authorized by the SUPERVISOR by disassembling port cushion vane assemblies, including bearings, flanges and linkage, clean, lubricate and reassemble and align using new shims, gaskets and associated hardware in accordance with 2.2 and 2.3.

3.3.1 Accomplish repairs to the leading edges of vane assemblies by installing new tape from end to end in accordance with 2.3.

3.4 Accomplish operational test of port cushion vanes to verify proper allignment.

3.4.1 Submit one legible copy, in hard copy or electronic media, of a report listing results of the requirements of 3.4 to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	251–11–001
		PCN:	LC52–Y068
COAR:	26–052	CMP:	NONE
		PLANNER:	DEFOSSE

1. SCOPE:

1.1 Title: Inlet Air Hoses to APU Filters; replace

1.2 Location of Work:

1.2.1 Main Deck, Frame 10, Port and Starboard

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 513–5750013 Rev P, Duct Installation – Upstream Cooling Air

3. REQUIREMENTS:

3.1 Accomplish removals, modifications and installations of the inlet air to apu filter system (port side) Qty (One) 6 inch x 35 inch hose (Item 4 on 2.2) with Qty (4) hose clamps (Item 21 on 2.2), Qty (One) 2 inch x 27 inch hose (Item 6 on 2.2) with Qty (6) hose clamps (Item 53 on 2.2) and to apu filter system (stbd side) Qty (One) 6 inch x 35 inch hose (Item 4 on 2.2) with Qty (4) hose clamps (Item 21 on 2.2), Qty (One) 2 inch x 27 inch hose (Item 6 on 2.2) with Qty (6) hose clamps (Item 53 on 2.2).

3.1.1 Fabricate new hose sections, using existing sections as a template in accordance with 2.2.

3.1.2 Restore mating surfaces exposed by removals. Repair by removing high spots, burrs, abrasions, and foreign matter, where removal can be accomplished by hand tools.

3.2 Accomplish an operational test of the newly modified and installed hoses to the apu filter system under system operating pressures. Allowable leakage at new and disturbed joints: None.

3.2.1 Submit one legible copy, in hard copy or electronic media of a report listing results of the requirements of 3.2 to the SUPERVISOR.

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	251–90–001
		PCN:	LC52–2093
COAR:	26–052	CMP:	NONE
		PLANNER:	SULLIVAN

1. SCOPE:

1.1 Title: LCAC1 Class CraftAlt–0358K Rev 01, Engine Combustion Air Filter Maintainability Mods; accomplish

1.2 Location of Work:

1.2.1 Main Deck, Port and Starboard Filter Bays, Frames 12–15

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 LCAC CRAFTALT–0358K Rev 01, Engine Combustion Air Filter Maintainability Modifications

2.3 251–7088399 Rev E, Engine Combustion Air Filter Modification Kit

2.4 251–5749992 Rev U, Filter Inst. Combustion Air

2.5 151–6800337 Rev N, Structural Assy & Instl–Engine Compartment

2.6 251–5749994 Rev T, Swirltube Assy, Combustion Air

2.7 251–5750199 Rev M, FOD Screen Assy, Combustion Air

2.8 151–6800348 Rev E, Floor Assembly–Engine Compartment

2.9 S6360–AE–MMA–010 Rev 3, Landing Craft, Air Cushion (LCAC) Corrosion Control Manual

2.10 631–6266706 Rev M, Painting and Marking

3. REQUIREMENTS:

3.1 Accomplish removals, modifications and installations incidental to LCAC1 Class CraftAlt–0358K Rev 01, Engine Combustion Air Filter Maintainability Mods, at locations listed in 1.2.1 in accordance with 2.2 and 2.3, using 2.4 through

2.10 for guidance.

3.1.1 Chip and grind surfaces flush and smooth in way of removals.

3.2 Accomplish the requirements of 009-12 of 2.1, including Table 4, Column C, Lines One through 7.

3.3 Accomplish the requirements of 009-32 of 2.1, for surface preparation and preservation of new and disturbed surfaces.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	261–11–001
		PCN:	LC52–Y076
COAR:	26–052	CMP:	NONE
		PLANNER:	DEFOSSE

1. SCOPE:

1.1 Title: APU No. One Fuel Oil System Gage; repair

1.2 Location of Work:

1.2.1 APU Compartment, Frame 11–12, Starboard

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 261–6386377 Rev T, APU Fuel Feed and Stripping Instl

3. REQUIREMENTS:

3.1 Accomplish removal, repair, calibration and installation of the APU fuel oil gage, located in 1.2.1, in accordance with 2.2 and the following:

3.1.1 Accomplish the requirements of 009–14 of 2.1 for the Qty (One) pressure gage (no. 179 on 2.2) for the stbd APU fuel oil system.

3.1.2 Restore mating surfaces exposed by removals. Repair by removing high spots, burrs, abrasions, and foreign matter, where removal can be accomplished by hand tools.

(V) (G) "OPERATIONAL TEST"

3.2 Accomplish an operational test of the newly repaired APU fuel oil system gage under system operating pressure. Allowable leakage at new and disturbed joints: None.

3.2.1 Submit one legible copy, in hard copy or electronic media of a report listing results of the requirements of 3.2 to the SUPERVISOR.

4. NOTES:

4.1 None.

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)	ITEM NO:	261-90-001
		PCN:	BOST-0003
COAR:	26-052	CMP:	NONE
		PLANNER:	SULLIVAN

1. SCOPE:

1.1 Title: LCAC1 Class-0449K Main Fuel Feed Boost Pump Safety Relay; accomplish

1.2 Location of Work:

1.2.1 2-14-2-Q

1.2.2 2-14-1-Q

1.3 Identification:

1.3.1 Relay, P/N M83536/33-005

2. REFERENCES:

2.1 Standard Items

2.2 LCAC CRAFTALT-0449K, Main Fuel Feed Boost Pump Safety Relay

2.3 324-7543419 Rev A, Main Fuel Feed Pump relay Installation

3. REQUIREMENTS:

3.1 Accomplish removals, modifications and installations incidental to LCAC1 Class C/A-0449K, Main Fuel Feed Boost Pump Safety Relay at locations listed in 1.2 in accordance with 2.2 and 2.3.

(I)(V) "OPERATIONAL TEST"

3.2 Verify by operational checks that all electrical devices or components installed by this C/A operate satisfactorily.

3.2.1 Record readings on performance summary sheets.

3.2.1.1 Record readings on performance summary sheets.

3.2.1.2 Submit one legible copy, in hard copy or electronic media, of completed summary sheets to the SUPERVISOR.

4. NOTES:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	262–11–001
		PCN:	LC52–Y069
COAR:	26–052	CMP:	NONE
		PLANNER:	DEFOSSE

1. SCOPE:

1.1 Title: Lube Oil Manifold Assy Bracket and Clamp; repair and replace

1.2 Location of Work:

1.2.1 Main Deck, Frame 11, Starboard

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 262–5749885 Rev AH, Lube Oil Instl, Fwd

2.3 262–5749886 Rev K, Bracket Details and Assy. – Fwd Lube Oil

2.4 S6240–A9–MAN–010 Rev 2, Welding and Inspection Manual for Landing Craft Air Cushion

3. REQUIREMENTS:

3.1 Accomplish repairing of the forward starboard lube oil manifold assembly bracket, located in 1.2.1, (listed as FN 192, view K–K and W–W on sheet 8 of 2.2, and FN 57 on 2.3), and install Qty (One) starboard lube oil manifold assembly piping clamp with associated hardware to the newly repaired bracket.

3.1.1 Chip and grind surfaces flush and smooth in way of removals and installations.

3.1.2 Accomplish the requirements of 2.4 and 009–12 of 2.1, including Table 4, Column C, Lines One through 7.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)	ITEM NO:	313-11-001
		PCN:	LC52-Y070
COAR:	26-052	CMP:	NONE
		PLANNER:	DEFOSSE

1. SCOPE:

1.1 Title: Outboard Demister Valve, Air Duct with Clamps; install

1.2 Location of Work:

1.2.1 Battery Compartment (2-15-4-Q), Frame 15-16, Port

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 313-5748998 Rev N, Vent, Instl & Details Battery Compt

3. REQUIREMENTS:

3.1 Accomplish removals, modifications and installations of the outboard demister valve flex air duct hose assembly, with associated qty (2) clamps, located in 1.2.1, (from elbow flange assembly to wand), in accordance with 2.2.

3.1.1 Restore mating surfaces exposed by removals. Repair by removing high spots, burrs, abrasions, and foreign matter, where removal can be accomplished by hand tools.

(V)(G) "OPERATIONAL TEST"

3.2 Accomplish an operational test of the newly modified and installed flex air duct hose assembly under system operating pressure and temperature. Allowable leakage at new and disturbed joints: None.

3.2.1 Submit one legible copy, in hard copy or electronic media of a report listing results of the requirements of 3.2 to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	321–23–001
		PCN:	LC52–Y080
COAR:	26–052	CMP:	NONE
		PLANNER:	BENVIE SULLIVAN

1. SCOPE:

1.1 Title: Power Switch ground wire; replace

1.2 Location of Work:

1.2.1 Main Deck, Port Frame 15

1.3 Identification:

1.3.1 Main Deck Power Switch

2. REFERENCES:

2.1 Standard Items

2.2 DOD–STD–2003, Electric Plant Installation, Standard Methods for surface Ships and Submarines

2.3 MIL–STD–1310, Shipboard Bonding, Grounding and other Techniques for Electromagnetic Compatibility and Safety

3. REQUIREMENTS:

3.1 Replace defective ground lug in accordance with 2.2 and 2.3

3.1.1 Remove existing and install new lugs conforming to MIL–T–16366.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	441–11–001
		PCN:	LC52–Y030
COAR:	26–052	CMP:	NONE
		PLANNER:	BENVIE

1. SCOPE:

1.1 Title: LCAC Communication System(s) Inspection and Testing; accomplish prior start of C/A 433K

1.2 Location of Work:

1.2.1 Throughout the Craft

1.3 Identification:

1.3.1 Interior Voice Control Units (IVCU)

1.3.2 Communication Control Units

1.3.3 Public address System

1.3.4 Alarm Generator System

1.3.5 UHF Radio

1.3.6 VHF Radio

1.3.7 HF Radio

1.3.8 Radar System

1.3.9 Man–On–the–Move (MOM) Radio

1.3.10 Global Positioning System

2. REFERENCES:

2.1 Standard Items

2.2 SE100–AW–MMA–010/020, Vol I/Vol II, LCAC Communication Systems

3. REQUIREMENTS:

(I) (V) "OPERATIONAL TEST"

3.1 Prior to accomplishing Work Item 441–90–001, CraftAlt 433K perform an operational test of the equipment listed in 1.3 in accordance with 2.2.

3.1.1 Submit one legible copy, in hard copy or electronic media of a report listing the results of 3.1 to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	441–11–002
		PCN:	LC52–Y084
COAR:	26–052	CMP:	NONE
		PLANNER:	BENVIE

1. SCOPE:

1.1 Title: Removal of Dead–Ended Cable(s) Prior to Start of CraftAlt 433K; accomplish

1.2 Location of Work:

1.2.1 Various

1.3 Identification:

1.3.1 Communication Power Supply Cable C–CNR–01

1.3.2 Communication Power Supply Cable C–CPS–01

1.3.3 Communication Power Supply Cable LC3–1P–H(1)

1.3.4 Communication Power Supply Cable LC3–1P–G(1)

1.3.5 Communication Power Supply Cable C–ENS–01

1.3.6 Communication Power Supply Cable 3EDC–28P–E

1.3.7 Communication Power Supply Cable C–CJB–25

2. REFERENCES:

2.1 Standard Items

2.2 321–7088728 Rev A, Communication Power Supply Removal

3. REQUIREMENTS:

3.1 Prior to accomplishing Work Item 441–90–001, CraftAlt 433K, remove the cables identified in 1.3, using 2.2 for guidance

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	441–85–001
		PCN:	LC52–Y118
COAR:	26–052	CMP:	NONE
		PLANNER:	BENVIE SULLIVAN

1. SCOPE:

1.1 Title: LCAC1 Class AER–491A, HF Antenna Feed through Coupler; accomplish

1.2 Location of Work:

1.2.1 Top of P & E Module

1.3 Identification:

1.3.1 High Frequency Antenna

2. REFERENCES:

2.1 Standard Items

2.2 LCAC Alteration Equivalent–To–Repair AER 491A Titled, HF Antenna Feed through Coupler

3. REQUIREMENTS:

3.1 Accomplish removals, modifications and installations incidental to LCAC1 Class AER–491A, HF Antenna Feed through Coupler in accordance with 2.2.

3.1.1 Accomplish the requirements of 009–25 of 2.1. for a local hose test of HF Antenna Feed Through Coupler. Allowable leakage: None

3.1.1.1 Submit one legible copy, in hard copy or electronic media of a report listing results of the requirements of 3.1.1 to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	441–90–001
COAR:	26–052	PCN:	LC52–Y092
		CMP:	NONE
		PLANNER:	BENVIE SULLIVAN

1. SCOPE:

1.1 Title: LCAC Class CraftAlt–433K, Install ARC–210/220 Radios; accomplish

1.2 Location of Work:

1.2.1 1–3–1–C

1.3 Identification:

1.3.1 ARC–210/220 Radios

2. REFERENCES:

2.1 Standard Items

2.2 441–7541839 Rev A, ARC 210/220 Radio BWD Ripout

2.3 441–7541840 Rev A, ARC 210/220 Radio BWD Install

2.4 441–7541841 Rev A, ARC 210/220 Radio CA Run Sheets

2.5 441–7541842 Rev A, SECVOX J–Box Mod Incdt Radio

2.6 441–7541843 Rev A, Fill Panel Fabrication

2.7 441–7541844 Rev A, Arr Mods ARC–210/220 Radios

2.8 321–7541845 Rev A, Radio LTG CTRL Pnl Fab

2.9 321–7541846 Rev A, Pwr Mods Incdt ARC 210/220

2.10 441–7541847 Rev A, Misc Detail HF FLTR/LVL Card

2.11 184–7541848 Rev A, Misc FDNS Incid to CAR 433K

2.12 441–7539780 Rev B, High Frequency Antenna Replacement

2.13 LCAC Class Craftalt–433K, Titled; Install ARC–210/220 Radios

2.14 53711–446–7642614 Rev -, Arc–210/220 Radio Test

CRAFT: LANDING CRAFT AIR CUSHION
FIFTY–TWO (LCAC–52)

2.15 LCAC CRAFTALT–385K, Comm Power Supply Removal

3. REQUIREMENTS:

3.1 Accomplish removals, modifications and installations incidental to LCAC Class CraftAlt–433K Titled; Install ARC–210/220 Radios in accordance with 2.2 through 2.13 and 2.15.

3.1.1 Install Government Furnished Material listed in paragraph 5.1 in accordance with 2.3.

3.2 Verify by operational checks that all electrical devices or components installed or modified operate satisfactorily in accordance with 2.14.

3.2.1 Submit one legible copy, in hard copy or electronic media of a report listing the results of 3.2 to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

	TOTAL QUANTITY PROVIDED		NAME OF PART	PIECE NO.	REF NO.	NATIONAL STOCK NO.	PARA NO.
1.	2	EA	Transceiver Rt–1803/ARC	One	2.3	5895014563706	3.1.1
2.	One	EA	Transeiver, RT–1749/ARC	2	2.3	5821014134236	3.1.1
3.	2	EA	Mount, MT–6567/ARC	3	2.3	5975014438505	3.1.1
4.	One	EA	Mount, MT–7109/ARC–220(V)	4	2.3	5975014447929	3.1.1
5.	2	EA	Remote Control Unit, C–12571/ARC	5	2.3	5895014563707	3.1.1
6.	One	EA	Remote Control Unit C–12436/URC	6	2.3	5821014134234	3.1.1
7.	One	EA	Power Amplifier/Coupler AM–7531/URC	7	2.3	5821014158673	3.1.1

CRAFT: LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)

8.	One	EA	Mount, MT–7107/ARC –220(V)	8	2.3	5975014456167	3.1.1
9.	3	EA	Comsec, Main Terminal Unit, KY–100	9	2.3	5810013761380	3.1.1
10.	3	EA	Remote Control Unit Z–AVH	10	2.3	5810013761381	3.1.1
11.	One	EA	HF Antenna Feedthrough	15	2.3	P/N11967	3.1.1
12.	One	EA	HF Longwire Antenna Kit	16	2.3	P/N7539780	3.1.1

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	512–11–001
		PCN:	LC52–Y077
COAR:	26–052	CMP:	NONE
		PLANNER:	BENVIE

1. SCOPE:

1.1 Title: Purge Fans Connectors; replace

1.2 Location of Work:

1.2.1 2–2–4–A

1.2.2 2–2–3–A

1.3 Identification:

1.3.1 Purge Fans Connectors

2. REFERENCES:

2.1 Standard Items

2.2 DOD–STD–2003, Electric Plant Installation, Standard Methods for Surface Ships and Submarines

2.3 MIL–STD–1310, Shipboard Bonding, Grounding and Other Techniques for Electromagnetic Compatibility and Safety

3. REQUIREMENTS:

3.1 Replace connectors as located in 1.2 and identified in 1.3.1 in accordance with 2.2 and 2.3.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	529–11–001
		PCN:	LC52–Y071
COAR:	26–052	CMP:	NONE
		PLANNER:	DEFOSSE

1. SCOPE:

1.1 Title: Compartment Pressure Release Piping; replace

1.2 Location of Work:

1.2.1 Main Deck, Frame 5 and 15, Port and Starboard

1.3 Identification:

1.3.1 Qty (4) 1" O.D. X 12" Lg, Alum Tubing

1.3.2 Qty (4) .125" Tk, 3.1" X 4", Alum Plate

2. REFERENCES:

2.1 Standard Items

2.2 529–5749866 Rev AD, Bilge System Installation

2.3 529–5749868 Rev G, Bilge Assembly and Details

2.4 S6240–A9–MAN–010 Rev 2, Welding and Inspection Manual for Landing Craft Air Cushion

3. REQUIREMENTS:

3.1 Accomplish removals, modifications and installations of the compartment pressure release piping and plate located in 1.2 and listed in 1.3, in accordance with 2.2, 2.3 and the following:

3.1.1 Fabricate new sections, using existing sections as a template in accordance with 2.2 and 2.3.

3.1.1.1 Chip and grind surfaces flush and smooth in way of removals and installations.

3.1.1.2 Install new Qty (4) tube assemblies (piece no. 12 on 2.3) and Qty (4) plate sections (piece no. 13 on 2.3).

3.1.2 Accomplish the requirements of 2.4 and 009–12 of 2.1, including Table One, Column A, Lines One through 10.

3.1.3 Accomplish the requirements of 2.4 and 009-12 of 2.1, including Table 4, Column C, Lines One through 7.

3.1.3.1 Accomplish nondestructive testing in accordance with Line 10.

3.1.3.2 Submit one legible copy, in hard copy or electronic media of a report listing results of the requirements of 3.1.3.1 to the SUPERVISOR.

(V) (G) "OPERATIONAL TEST"

3.2 Accomplish an operational test of the newly modified and installed compartment pressure release piping system under system operating pressure. Allowable leakage at new and disturbed joints: None.

3.2.1 Submit one legible copy, in hard copy or electronic media of a report listing results of the requirements of 3.2 to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)	ITEM NO:	541-11-001
		PCN:	LC52-Y072
COAR:	26-052	CMP:	NONE
		PLANNER:	DEFOSSE

1. SCOPE:

1.1 Title: Fuel Oil Fill System Gages; repair

1.2 Location of Work:

1.2.1 Main Deck, Frame 2, Port and Stbd

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 541-5749909 Rev U, Fuel/Defuel Instl

3. REQUIREMENTS:

3.1 Accomplish removals, repairs, calibrations and installations of the fuel oil fill station gages, located in 1.2.1, in accordance with 2.2 and the following:

3.1.1 Accomplish the requirements of 009-14 of 2.1 for the Qty (2) pressure gages (no. 124 on 2.2) for the port and starboard fuel oil fill stations.

3.1.2 Restore mating surfaces exposed by removals. Repair by removing high spots, burrs, abrasions, and foreign matter, where removal can be accomplished by hand tools.

(V) (G) "OPERATIONAL TEST"

3.2 Accomplish an operational test of the newly repaired fuel oil fill system gages under system operating pressure. Allowable leakage at new and disturbed joints: None.

3.2.1 Submit one legible copy, in hard copy or electronic media of a report listing results of the requirements of 3.2 to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	568–11–001
		PCN:	LC52–Y087
COAR:	26–052	CMP:	NONE
		PLANNER:	PFANTZ

1. SCOPE:

1.1 Title: Starboard Bow Thruster Vee–belts and Fiberglass covers; replace

1.2 Location of Work:

1.2.1 Starboard Side Frame 7–10

1.3 Identification:

1.3.1 Starboard Bow Thruster

2. REFERENCES:

2.1 Standard Items

2.2 S9568–AL–MMA–010, Landing Craft, Air Cushion (LCAC) Bow Thruster

3. REQUIREMENTS:

3.1 Accomplish the removal of the bow thruster hydraulic motor cover and fiberglass vee–belt covers, and vee–belts in accordance with 2.2.

3.2 Install the new vee–belts, new fiberglass vee–belt covers and the existing hydraulic motor cover using new fasteners in accordance with 2.2.

4. NOTES:

4.1 None

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	568–12–001
		PCN:	LC52–Y088
COAR:	26–052	CMP:	NONE
		PLANNER:	PFANTZ

1. SCOPE:

1.1 Title: Port Bow Thruster Vee–belts and Fiberglass covers; replace

1.2 Location of Work:

1.2.1 Port Side Frame 7–10

1.3 Identification:

1.3.1 Port Bow Thruster

2. REFERENCES:

2.1 Standard Items

2.2 S9568–AL–MMA–010, Landing Craft, Air Cushion (LCAC) Bow Thruster

3. REQUIREMENTS:

3.1 Accomplish the removal of the bow thruster hydraulic motor cover and fiberglass vee–belt covers, and vee–belts in accordance with 2.2.

3.2 Install the new vee–belts, new fiberglass vee–belt covers and the existing hydraulic motor cover using new fasteners in accordance with 2.2.

4. NOTES:

4.1 None

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	568–85–002
		PCN:	BOST–0002
COAR:	26–052	CMP:	NONE
		PLANNER:	PFANTZ SULLIVAN

1. SCOPE:

1.1 Title: LCAC AER–0508A, Bow Thruster Manifold Thruster Ring Crack Repair; accomplish

1.2 Location of Work:

1.2.1 Port and Starboard Frame 7

1.3 Identification:

1.3.1 Bow Thruster (Quantity 2)

2. REFERENCES:

2.1 Standard Items

2.2 LCAC AER–0508A, Bow Thruster Manifold Thruster Ring Crack Repair

2.3 S9598–AL–MMA–010, LCAC Bow Thruster

2.4 568–5750024 Rev F, Support Ring–Bearing

2.5 568–6386382 Rev H, Aluminum Manifold Details and Assembly

2.6 LCAC ADVISORY–04–03, Bow Thruster Ring Crack Repair Procedures

3. REQUIREMENTS:

3.1 Accomplish removals, modifications and installations incidental to AER–0508A, Bow Thruster Manifold Thruster Ring Crack Repair, in accordance with 2.2 through 2.6.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	584–31–001
		PCN:	LC52–Y073
COAR:	26–052	CMP:	NONE
		PLANNER:	DEFOSSE

1. SCOPE:

1.1 Title: Bow Ramp Hydraulic Module Vent Piping; install

1.2 Location of Work:

1.2.1 Main Deck, Frame 5, Starboard

1.2.2 Compartment (2–5–3–Q), Starboard

1.3 Identification:

1.3.1 Qty (One) 1" O.D. X 5" Lg, Tube Assy (Listed as FN 306 on 2.2)

1.3.2 Qty (One) Nut (Listed as FN 218 on 2.2)

1.3.3 Qty (One) Packing with Retainer (Listed as FN 299 on 2.2)

1.3.4 Qty (One) Vent Assy (Listed as FN 300 on 2.2)

2. REFERENCES:

2.1 Standard Items

2.2 584–5749833 Rev AA, Hydraulic Installation, Bow Ramp

2.3 584–5749837 Rev K, Tube Assembly – Hydraulic, Bow Ramp

2.4 S6240–A9–MAN–010 Rev 2, Welding and Inspection Manual for Landing Craft Air Cushion

3. REQUIREMENTS:

3.1 Accomplish removals, modifications and installations of the stbd main deck patch and the stbd bow ramp hydraulic module vent piping, located in 1.2.1 and 1.2.2, and listed in 1.3.1 through 1.3.4, in accordance with 2.2, 2.3 and the following:

3.1.1 Chip and grind surfaces flush and smooth in way of removals and installations.

3.1.2 Accomplish the requirements of 2.4 and 009–12 of 2.1, including

CRAFT: LANDING CRAFT AIR CUSHION
FIFTY-TWO (LCAC-52)

Table One, Column A, Lines One through 10.

3.1.3 Accomplish the requirements of 2.4 and 009-12 of 2.1, including Table 4, Column C, Lines One through 7.

3.1.3.1 Accomplish nondestructive testing in accordance with Line 10.

3.1.3.2 Submit one legible copy, in hard copy or electronic media of a report listing results of the requirements of 3.1.3.1 to the SUPERVISOR.

(V) (G) "OPERATIONAL TEST"

3.2 Accomplish an operational test of the newly modified and installed stbd bow ramp hydraulic module vent piping system under system operating pressure. Allowable leakage at new and disturbed joints: None.

3.2.1 Submit one legible copy, in hard copy or electronic media of a report listing results of the requirements of 3.2 to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)	ITEM NO:	611-11-001
		PCN:	LC52-Y106
COAR:	26-052	CMP:	NONE
		PLANNER:	FLAHERTY

1. SCOPE:

1.1 Title: Landing Rail; repair

1.2 Location of Work:

1.2.1 Forward, Port Side

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 161-6386242 Rev -, Landing Rail - Welded

2.3 111-5749144 Rev M, Plating Installation, Wet Deck

2.4 111-5749145 Rev P, Plating Details, Wet Deck

3. REQUIREMENTS:

3.1 Remove existing damaged and install new, a total of 2 square feet of bottom landing rail plating (12" x 18"), at location listed in 1.2.1. Area to be repaired is located from forward end of landing rail, aft for a length of 18 inches. Accompish in accordance with 2.2, using 2.3 and 2.4 as guidance for locations.

3.2 Accomplish the requirements of 009-12 of 2.1, including Table 4, Column(s) C, Lines One through 7.

3.2.1 Accomplish nondestructive testing in accordance with Line 10.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	613–11–001
		PCN:	LC52–Y096
COAR:	26–052	CMP:	NONE
		PLANNER:	SULLIVAN

1. SCOPE:

1.1 Title: Passenger Seating, repairs

1.2 Location of Work:

1.2.1 P and E Module

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 661–5749056 Rev W, Passenger Seating Instl

2.3 661–5749719 Rev T, Seat Support Assy & Details Passenger

3. REQUIREMENTS:

3.1 Accomplish repairs to passenger seats located in 1.2 in accordance with 2.2, and 2.3 as follows:

3.1.1 Accomplish installation of (4) new support rods where damaged/missing including hardware at passenger seating at frame 4 port.

3.1.2 Accomplish installation of (2) new support rods where damaged/missing including hardware at passenger seating at frame 5 port.

3.1.3 Accomplish installation of (2) new support rods where damaged/missing including hardware at passenger seating at frame 5 1/2 port.

3.1.4 Accomplish installation of (1) new vertical leg weldment where missing including hardware at passenger seating at frame 3 port.

3.1.5 Accomplish the requirements of 009–12 of 2.1, including Table 4, Column C, Lines One through 7.

4. NOTES:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)	ITEM NO:	625-11-001
		PCN:	LC52-Y078
COAR:	26-052	CMP:	NONE
		PLANNER:	BENVIE SULLIVAN

1. SCOPE:

1.1 Title: Windshield Wiper Motor; replace

1.2 Location of Work:

1.2.1 Command Module

1.3 Identification:

1.3.1 Windshield Wiper Motor

2. REFERENCES:

2.1 Standard Items

2.2 625-5749041 Rev W, Windshield Wiper Details & Assembly

3. REQUIREMENTS:

3.1 Replace Windshield Wiper Motor located in 1.2.1 at aft inboard side and Identified in 1.3.1 in accordance with 2.2.

3.2 Verify by operational checks that all Electrical Devices or components installed, operate satisfactorily.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	625–11–002
		PCN:	LC52–Y074
COAR:	26–052	CMP:	NONE
		PLANNER:	DEFOSSE

1. SCOPE:

1.1 Title: Windshield Wash System: Piping, Fittings, Hardware and Hangers; replace

1.2 Location of Work:

1.2.1 Top of Command Module, Frames 3–5, Starboard

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 625–5749102 Rev W, Windshield Wash Installation

2.3 625–5750156 Rev K, Tube Assembly – Windshield Wash System

2.4 625–5750157 Rev J, Windshield Wash Details

2.5 S6240–A9–MAN–010 Rev 2, Welding and Inspection Manual for Landing Craft Air Cushion

3. REQUIREMENTS:

3.1 Accomplish removals, modifications and installations of the windshield wash piping located in 1.2.1, in accordance with 2.2, 2.3, 2.4 and the following:

3.1.1 Remove hose and install new Qty (One) 1/4 inch x 2 foot tube assembly with associated end fittings, Qty (One) bushing and packing (at check valve) and Qty (One) loop clamp with associated hardware to the starboard front middle window (at top). The existing Qty (One) check valve and Qty (One) nozzle are to be reused.

3.1.2 Install new Qty (One) hanger bracket assembly with mounting cap and associated hardware (at nozzle) to the stbd outboard side middle window.

3.1.3 Restore mating surfaces exposed by removals. Repair by removing high spots, burrs, abrasions, and foreign matter, where removal can be

accomplished by hand tools.

3.1.4 Accomplish the requirements of 2.5 and 009-12 of 2.1, including Table 4, Column C, Lines One through 7.

3.1.4.1 Chip and grind surfaces flush and smooth in way of removals and installations.

3.2 Clean and flush the new and disturbed sections of windshield wash piping with hot fresh water for one hour. The temperature of the water shall not drop below 110 degrees Fahrenheit at the outlet of the flushed pipes.

3.3 Accomplish the requirements of 009-71 of 2.1 for new and disturbed windshield wash piping, using clean, fresh water at 100 PSIG.

3.3.1 Submit one legible copy, in hard copy or electronic media of a report listing results of the requirements of 3.3 to the SUPERVISOR.

(V) (G) "OPERATIONAL TEST"

3.4 Accomplish an operational test of the newly modified and installed windshield wash piping system under system operating pressure. Allowable leakage at new and disturbed joints: None.

3.4.1 Submit one legible copy, in hard copy or electronic media of a report listing results of the requirements of 3.4 to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	625–11–003
		PCN:	LC52–Y075
COAR:	26–052	CMP:	NONE
		PLANNER:	DEFOSSE

1. SCOPE:

1.1 Title: Air Jet Window Clearing System Hoses and Clamps; replace

1.2 Location of Work:

1.2.1 Front of Command Module, Frame 3, Stbd

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 625–6386449 Rev H, Air Jet Window Clearing System Installation

3. REQUIREMENTS:

3.1 Accomplish removals and installations of the air jet window clearing system Qty (3) 2 inch x 14 inch hoses (Item 130 on 2.2), Qty (One) 2 1/2 inch x 20 inch hose (Item 147 on 2.2) and Qty (16) hose clamps (Item 33 on 2.2).

3.1.1 Fabricate new hose sections, using existing sections as a template in accordance with 2.2.

3.1.2 Restore mating surfaces exposed by removals. Repair by removing high spots, burrs, abrasions, and foreign matter, where removal can be accomplished by hand tools.

3.2 Accomplish an operational test of the newly modified and installed hoses to the air jet window clearing system under system operating pressures and temperatures. Allowable leakage at new and disturbed joints: None.

3.2.1 Submit one legible copy, in hard copy or electronic media of a report listing results of the requirements of 3.2 to the SUPERVISOR.

4. NOTES:

4.1 None.

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)	ITEM NO:	625-11-004
		PCN:	LC52-Y111
COAR:	26-052	CMP:	NONE
		PLANNER:	FLAHERTY

1. SCOPE:

1.1 Title: Manual Operated Window Wiper; install

1.2 Location of Work:

1.2.1 Top of P/E Module, Port

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 625-5749658 Rev N, Dome Assemblies, Observer

2.3 625-5749586 Rev L, Dome Installation, Observer

2.4 625-5749651 Rev L, Dome Details, Observer

3. REQUIREMENTS:

3.1 Install QTY One (1) new manual wiper assembly, (Find No. 76 of 2.2) where missing on aft observer dome window at location listed in 1.2. Accomplish in accordance with 2.2 through 2.4.

3.1.1 Install new wiper assemblies using new hardware.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)	ITEM NO:	631-85-001
		PCN:	LC52-Y094
COAR:	26-052	CMP:	NONE
		PLANNER:	MUNROE SULLIVAN

1. SCOPE:

1.1 Title: LCAC Class AER-0194A Rev A, Deck Coating Under Modules; accomplish

1.2 Location of Work:

1.2.1 Main Deck Under Machinery Modules, Port and Starboard

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 LCAC AER-0194A Rev A, Deck Coating Under Modules

3. REQUIREMENTS:

3.1 Accomplish removals, modifications and installations incidental to LCAC Class AER-0194A Rev A, Deck Coating Under Modules, at locations listed in 1.2.1 in accordance with 2.2.

(I) (G) "SURFACE PREPARATION"

3.2 Accomplish the requirements of 009-32 of 2.1, including Table 2, Line 16, Columns A through D, for surface preparation and application of an epoxy coating system on deck surfaces listed in 1.2.1 with the exception that an additional, final coat of formula 151 shall be applied to deck surfaces to a minimum dry film thickness of 2-4 mils (Total of 3 coats).

3.2.1 Deck surfaces to be preserved shall include a minimum of six inches beyond boundry of machinery modules with the exception of outboard sides.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	631–90–001
		PCN:	LC52–Y093
COAR:	26–052	CMP:	NONE
		PLANNER:	MUNROE

1. SCOPE:

1.1 Title: LCAC CRAFTALT–0445K, Limited Compartment Painting; accomplish

1.2 Location of Work:

1.2.1 Throughout Craft

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 631–6266706 Rev M, Paint and Marking

2.3 LCAC CRAFTALT–0445K, Limited Compartment Painting

2.4 ASTM STANDARD D4417, Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel

2.5 S9086–VD–STM–010/020/030, Naval Ships' Technical Manual (NSTM) Chapter 631, Volumes 1, 2, and 3, Preservation of Ships in Service

2.6 Systems and Specifications, Steel Structures Painting Manual, Volume 2

2.7 S6360–AE–MMA–010, LCAC Corrosion Control Manual

3. REQUIREMENTS:

3.1 Accomplish surface preparation and preservation of surfaces incidental to LCAC1 Class C/A–0445K, Limited Compartment Painting, at locations listed in 2.3 and in accordance with 2.2, using 2.5 and 2.7 for guidance.

3.1.1 Accomplish an inspection of surfaces at locations listed in 3.1 for oil contamination using a UV "black" light method.

3.1.1.1 Submit four legible copies of a report listing the results of the requirements of 3.1.1 to the SUPERVISOR, listing exact locations,

compartment numbers and square footage of contamination.

3.1.2 Solvent clean oil contaminated surfaces listed in report of 3.1.1.1, using a detergent that does not leave a film that interferes with coating adhesion, i.e., "Simple Green". Known degreasing solvents are "Oxsol 100" and "SkyKleen".

3.1.3 Prepare aluminum surfaces for coating applications using any one method or any combination of the following methods:

3.1.3.1 Hand tool cleaning using garnet sandpaper with a minimum grit profile of 30 grit.

3.1.3.2 Power tool cleaning, limited to disc grinders using garnet paper with a minimum grit profile of 30 grit.

3.1.3.3 Near white metal blast cleaning using garnet or aluminum oxide, conforming to MIL-A-21380, Type One or Mil-A-22262. Grit size shall not exceed a maximum size of 50 grit.

3.1.3.4 Hydroblast cleaning using a slurry system with an 80 grit garnet abrasive.

3.1.4 Accomplish the requirements of 009-90 of 2.1 to obtain the services of a NACE I/PI-1 certified coating inspector for quality assurance requirements during the surface preparation and application of coatings.

3.1.5 After blasting and cleaning operations, accomplish an inspection of peak-to-valley surfaces for profiles of between 2.5 to 3.5 mils. Measurements shall be taken in accordance with Method C of 2.4. Five measurements are to be averaged in accordance with the calculational method as described in SSPC PA-2, with the exception that voids are to be considered independent jobs, thereby necessitating five measurements to be averaged per void. Average surface profiles of 2.5 to 3.5 mils shall be required regardless of the method of surface preparation. The minimum and maximum profile requirements shall be applied to each square foot of the surfaces of the tanks due to the critical nature of these surfaces.

3.1.5.1 Hydroblasted surfaces shall be in accordance with International Courtaulds Marine Paint Company Hydroblasting standard, Very Thorough Hydroblast, HB2 1/2 L.

3.1.6 Clean prepared surfaces free of dust, grit and contaminants prior to application of coatings.

3.1.7 Standards for surface preparation requirements and mixing, stand-in times and application of coatings requirements, where not spoken to in this

work item, shall be in accordance with 009-32 of 2.1 and 2.2 through 2.7. It is understood that coating the surfaces within four (4) hours after surface preparation and removal of cleaning materials is difficult to achieve under some circumstances, however with the installation of dehumidification equipment and holding relative humidity levels at 30% to 35%, corrosion due to moisture is relatively minimal, at best and essentially should not occur. In any case coating applications shall occur at the earliest possible time after cleaning operations.

3.1.7.1 Records shall be taken and maintained for surface preparation and applications of coatings in accordance with 009-32 of 2.1 and 2.4.

3.1.7.2 Application of coatings shall be with conventional spray, brush or roller. Airless spray application methods are not allowed.

3.1.8 Dry film thickness readings shall be taken using a non-ferrous DFT gage in accordance with Method PA-2 of 2.6.

4. NOTES:

4.1 Accomplish structural repairs and welding prior to application of any coating materials.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	634–21–001
		PCN:	LC52–Y110
COAR:	26–052	CMP:	NONE
		PLANNER:	MUNROE SULLIVAN

1. SCOPE:

1.1 Title: Non–Skid; replace

1.2 Location of Work:

1.2.1 Main Deck

1.2.2 Cargo Deck

1.2.3 Top of Port Engine Module

1.2.4 Top of Starboard Engine Module

1.2.5 Top of P/E Module

1.2.6 Top of Command Module

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 634–5749104 Rev P, Coatings, Deck Instl

3. REQUIREMENTS:

3.1 Prepare a sketch showing the existing non–skid and markings for deck surfaces listed in 1.2 using 2.2 for guidance.

3.2 Remove the existing non–skid from deck surfaces of areas listed in 1.2 using sketch prepared in 3.1 as guidance.

3.3 Erect shrouds/curtains to contain environmental pollutants generated by exterior preservation operations. remove upon completion of preservation.

3.4 Accomplish the requirements of 009–32 of 2.1, including Table 2, Line 18, Columns A through E, for the installation of new non–skid in place of that

removed in 3.2 and in accordance with sketch prepared in 3.1.

3.5 The requirements of this Work Item will be accomplished prior to Craft Runway and Craft Harbor Trials.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	841–11–001
		PCN:	LC52–Y112
COAR:	26–052	CMP:	NONE
		PLANNER:	SULLIVAN

1. SCOPE:

1.1 Title: System and Component Flushing, Pressure and Functional Tests; accomplish

1.2 Location of Work:

1.2.1 Throughout Craft

1.3 Identification:

1.3.1 Various

2. REFERENCES:

2.1 Standard Items

2.2 2B262C402 Rev A, Test Procedure Propeller Support Bearing Lubrication System Piping Tests

2.3 2C532C405 Rev A, Test Procedure Freshwater Tank Completion Test

2.4 2C541C407 Rev A, Test Procedure Fuel Storage, Overflow, and Stripping Tank Tightness Test

2.5 2C556C411 Rev B, Test Procedure Aft Hydraulic Systems Piping Test

2.6 2C556C412 Rev A, Test Procedure Forward Hydraulic Systems Piping Test

2.7 2D192C401 Rev A, Test Procedure Hull Flotation Compartment Completion Test

2.8 3C556C443 Rev A, Test Procedure Aft Hydraulic Systems Servicing and Functional Test

2.9 3C556C444 Rev A, Test Procedure Forward Hydraulic Systems Servicing and Functional Test

2.10 4A436C453 Rev A, Test Procedure Control, Alarm and Monitoring System (CAMS) Sensor Functional Test

2.11 4A436C454 Rev A, Test Procedure Maneuvering Control System, Alignment and Functional Tests

2.12 4B234C451 Rev D, Test Procedure Propulsion/Lift Engine Control System Functional Test

2.13 261–7444588 Rev –, SLEP 44 Fuel System Test Memo

2.14 5B234C461 Rev C, Test Procedure Propulsion Gas Turbine Operation Test

2.15 5B241C462 Rev C, Test Procedure Engine and Transmission Functional Test

2.16 5C311C463 Rev C, Test Procedure Generator Set Starting Test

2.17 7B200C477 Rev A, Test Procedure Craft Operation Demonstration (ST and UT)

2.18 3C314A401 Rev I, Electrical Power Conversion and Distribution Equipment Functional Tests (External Power)

2.19 4A436A415 Rev H, Fire Detection and Suppression Functional Test

2.20 4C311A413 Rev I, APU Control System Functional Test

2.21 4C584B419 Rev B, Stern Ramp Hydraulic System Functional Test

2.22 4C584B420 Rev B, Bow Ramp Hydraulic System Functional Test

2.23 5C311A425 Rev G, Electrical Power Generation and Control System Functional Test

2.24 4C262B416 Rev A, Transmission Lubrication System Flushing, Leak Tests, and Servicing

3. REQUIREMENTS:

3.1 Review the Flushing, Pressure and Functional test procedures of 2.2 through 2.24 and edit each operational test procedure for accomplishment.

3.1.1 Flushing, Pressure and Functional test procedures shall be edited to correspond to actual scope of work required to verify satisfactory completion of Contractor’s work and testing necessary to accomplish craft light–off.

3.1.1.1 Flushing procedures shall show locations of loops, jumpers, vents and drains, and all flushing equipment needed to accomplish the required flushing procedure.

3.1.2 Submit the edited Flushing, Pressure and Functional test procedures of 3.1 to the SUPERVISOR at least 30 days prior to accomplishment for review and approval.

(V) (G) "TEST"

3.2 Accomplish the Prerequisites and Flushing, Pressure and Functional tests in accordance with approved test procedure(s) submitted in 3.1.2. Record test results on Test Data Sheets. Verify operation during harbor trials, using data contained in test procedure for acceptance criteria.

3.2.1 Provide and install system filters during flushing operations of 3.2 when filters require replacement and new filters at completion of each individual flushing operation.

3.2.2 Submit one legible copy, in hard copy or electronic media, of completed Flushing, Pressure and Functional Test Data sheets applicable to test procedure(s) accomplished in 3.2 to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY–TWO (LCAC–52)	ITEM NO:	982–31–001
		PCN:	LC52–Y113
COAR:	26–052	CMP:	NONE
		PLANNER:	SULLIVAN

1. SCOPE:

1.1 Title: Craft Runway Trial and Craft Harbor Trial; accomplish

1.2 Location of Work:

1.2.1 Throughout the Craft

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

3. REQUIREMENTS:

3.1 Schedule and conduct a Craft Runway Trial.

3.1.1 Prepare a proposed Craft Runway Trial Agenda which shall contain a chronological listing of all tests and operations to be performed including proposed duration of events.

3.1.2 The proposed Craft Runway Trial Agenda shall be submitted to the SUPERVISOR, two calendar weeks prior to the scheduled post repair craft runway trial.

(V) (G) "INSPECTION PHASE"

3.1.3 The Inspection Phase, shall be conducted not later than one normal working day prior to the scheduled craft runway trial. The inspection shall be conducted by a team composed of representatives of contractor’s personnel and the SUPERVISOR.

3.1.3.1 All temporary rigging, excess equipment and debris shall be removed from the craft prior to the inspection required in 3.1.3. Remove all service lines.

3.1.4 During the craft runway trial the contractor shall provide the services of supervisors and mechanics of all trades to make corrections and

adjustments to place systems, equipment and associated components in an optimum operational status in accordance with the requirements of the work item.

3.1.5 The duration of the Craft Runway Trial shall be sufficient to accomplish all scheduled tests and operations, about one hour.

3.1.6 Submit one legible copy, in hard copy or electronic media, of a report listing the Craft Runway Trial results, which shall include copies of the data sheets completed to the SUPERVISOR. The data sheets shall list any discrepancies found during the Craft Runway Trial.

3.2 Schedule and accomplish a Craft Harbor Trial.

3.2.1 Prepare a proposed Craft Harbor Trial Agenda which shall contain a chronological listing of all tests and operations to be performed including proposed duration of events.

3.2.1.1 Tests and operations to be performed during the Craft Harbor Trail are those tests and operations specified in the requirements of the work item for accomplishment during the Craft Harbor Trial or for verification of satisfactory performance during the Craft Harbor Trial.

3.2.2 The proposed Craft Harbor Trial Agenda shall be submitted to the SUPERVISOR two calendar weeks prior to the established Craft Harbor Trial date.

3.2.3 The duration of the Craft Harbor Trial shall be sufficient to accomplish all scheduled tests and operations, about two hours.

3.2.4 The contractor shall submit a listing to the SUPERVISOR of contractor’s personnel and any manufacturer’s representative who are expected to be onboard the vessel during the sea trial.

3.2.4.1 The complete listing shall be submitted two working days prior to the established Craft Harbor Trial date for records and approval.

3.2.4.2 The listing shall include the person’s full name, address, phone number, social security number and next of kin.

3.3 The contractor shall provide certification that temporary or permanent instrumentation furnished to collect data for the Craft Harbor Trial meets the requirements of 009–13 and 009–14 of 2.1.

3.4 The contractor shall provide the services of supervisors and mechanics of all trades to make final corrections and adjustments to place systems, equipment and associated components in an optimum operational status and to make and record applicable test data.

3.4.1 Submit one legible copy, in hard copy or electronic media, of a

report listing the Craft Harbor Trial results, which shall include copies of the data sheets completed to the SUPERVISOR. The data sheets shall list any discrepancies found during the Craft Harbor Trial.

3.5 An availability completion review conference shall be conducted at a time and place mutually agreeable to all parties after the Post-Repair Craft Harbor Trial. The SUPERVISOR shall chair the conference. The subject of the conference shall be to establish completeness of the mid-life availability contractual requirements. The development of a coordinated government plan of action to complete unfinished and new work shall also be addressed.

3.6 Should any part of the craft, its machinery plant or equipment affected by the contractor during the availability fail to meet contractual requirements during the Craft Harbor trial, additional trials shall be conducted at the discretion of the SUPERVISOR to provide the opportunity for testing after appropriate modifications and corrective measures have been completed by the contractor.

3.6.1 Additional trials required because of a lack of contractual compliance shall be of no additional expense to the government.

4. NOTES:

4.1 The final Craft Runway Trial Agenda will be determined by the SUPERVISOR.

4.2 The final Craft Harbor Trial Agenda shall be determined by the SUPERVISOR.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)	ITEM NO:	993-11-001
		PCN:	LC52-Y114
COAR:	26-052	CMP:	NONE
		PLANNER:	SULLIVAN

1. SCOPE:

1.1 Title: Industrial Support Services; provide

1.2 Location of Work:

1.2.1 Throughout the Craft

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

3. REQUIREMENTS:

3.1 Provide 215 mandays and 25,000 of material and Industrial Support Services as directed by the SUPERVISOR.

3.1.1 Industrial services shall consist of all Journeyman trades.

3.1.2 Submit one legible copy, in hard copy or electronic media, of a report listing total labor hours with trade breakdown and material cost for each work request directed by the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

CRAFT: LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)

5.3 KITTED MATERIAL:

1. None.

CRAFT:	LANDING CRAFT AIR CUSHION FIFTY-TWO (LCAC-52)	ITEM NO:	993-31-001
		PCN:	LC52-Y115
COAR:	26-052	CMP:	NONE
		PLANNER:	SULLIVAN

1. SCOPE:

1.1 Title: Cleaning and Pumping; accomplish

1.2 Location of Work:

1.2.1 Control Station, 01-2-1-C

1.2.2 Observer Platform, 01-2-2-C

1.2.3 APU Engine Compartment, 01-11-1-Q

1.2.4 APU Engine Compartment, 01-11-2-Q

1.2.5 Starboard Engine Compartment, 01-12-1-Q

1.2.6 Starboard Engine Compartment, 01-13-1-Q

1.2.7 Port Engine Compartment, 01-12-2-Q

1.2.8 Port Engine Compartment, 01-13-2-Q

1.2.9 Electronic Equipment Space, 1-2-1-Q

1.2.10 Troop/Passenger Seating, 1-2-4-C

1.2.11 Ammunition Space, 1-2-6-M

1.2.12 Troop/Passenger Seating, 1-4-1-C

1.2.13 APU No. 1 Access and Air Inlet, 1-11-1-Q

1.2.14 APU No. 2 Access and Air Inlet, 1-11-2-Q

1.2.15 Engine Room No. 1 Inlet Air Filters, 1-12-1-Q

1.2.16 Engine Room No. 2 Inlet Air Filters, 1-12-2-Q

1.2.17 Engine Room No. 1 and 3 Access Room, 1-12-3-Q

1.2.18 Engine Room No. 2 and 4 Access Room, 1-12-4-Q

1.2.19 Engine Room No. 3 Inlet Air Filters, 1-13-1-Q

1.2.20 Engine Room No. 4 Inlet Air Filters, 1–13–2–Q

1.2.21 Floodable Void, 2–1–1–V

1.2.22 Floodable Void, 2–1–2–V

1.2.23 Flotation Void, 2–1–3–V

1.2.24 Flotation Void, 2–1–4–V

1.2.25 Flotation Void, 2–2–1–V

1.2.26 Flotation Void, 2–2–2–V

1.2.27 Stowage Space, 2–2–3–A

1.2.28 Stowage Space, 2–2–4–A

1.2.29 Flotation Void, 2–3–1–V

1.2.30 Flotation Void, 2–3–2–V

1.2.31 Fuel Tank No. 1, 2–3–3–F

1.2.32 Fuel Tank No. 2, 2–3–4–F

1.2.33 Fuel Equipment Space, 2–4–1–Q

1.2.34 Fuel Equipment Space, 2–4–2–Q

1.2.35 Electronic Equipment Space, 2–5–1–Q

1.2.36 Electronic Equipment Space, 2–5–2–Q

1.2.37 Electronic Equipment Space, 2–5–3–Q

1.2.38 Electronic Equipment Space, 2–5–4–Q

1.2.39 Fuel Overflow Tank, 2–5–6–F

1.2.40 Stowage Space, 2–6–1–A

1.2.41 Stowage Space, 2–6–2–A

1.2.42 Flotation Void, 2–6 1/2–1–V

1.2.43 Flotation Void, 2–6 1/2–2–V

1.2.44 Air Plenum, Lift Fan No. 1, 2–6 1/2–3–P

1.2.45 Air Plenum, Lift Fan No. 2, 2–6 1/2–4–P

1.2.46 Flotation Void, 2–6 1/2–5–V

1.2.47 Flotation Void, 2–6 1/2–6–V

1.2.48 Flotation Void, 2–7–1–V

1.2.49 Flotation Void, 2–7–2–V

1.2.50 Air Plenum, 2–7–0–P

1.2.51 Flotation Void, 2–7 1/2–1–V

1.2.52 Flotation Void, 2–7 1/2–2–V

1.2.53 Air Passage, 2–8–1–P

1.2.54 Air Passage, 2–8–2–P

1.2.55 Flotation Void, 2–8 1/2–1–V

1.2.56 Flotation Void, 2–8 1/2–2–V

1.2.57 Air Plenum, Lift Fan No. 3, 2–8 1/2–3–P

1.2.58 Air Plenum, Lift Fan No. 4, 2–8 1/2–4–P

1.2.59 Flotation Void, 2–8 1/2–5–V

1.2.60 Flotation Void, 2–8 1/2–6–V

1.2.61 Stowage Space, 2–9–1–A

1.2.62 Stowage Space, 2–9–2–A

1.2.63 Stowage Space, 2–10–1–A

1.2.64 Stowage Space, 2–10–2–A

1.2.65 Electronic Equipment Space, 2–10–3–Q

1.2.66 Electronic Equipment Space, 2–10–4–Q

1.2.67 Compartment, 2–11–1–Q

1.2.68 Compartment, 2–11–2–Q

1.2.69 Electronic Equipment Space, 2–11–3–Q

1.2.70 Electronic Equipment Space, 2–11–4–Q

1.2.71 Compartment, 2–12–1–Q

1.2.72 Void, 2–12–2–V

1.2.73 Void, 2–12–3–V

1.2.74 Compartment, 2–12–4–Q

1.2.75 Water Tank, 2–12–6–W

1.2.76 Flotation Void, 2–13–1–V

1.2.77 Flotation Void, 2–13–2–V

1.2.78 Flotation Void, 2–13–3–V

1.2.79 Flotation Void, 2–13–4–V

1.2.80 Electronic Equipment Space, 2–14–1–Q

1.2.81 Electronic Equipment Space, 2–14–2–Q

1.2.82 Void, 2–14–3–V

1.2.83 Void, 2–14–4–V

1.2.84 Fuel Equipment Space, 2–15–1–Q

1.2.85 Fuel Equipment Space, 2–15–2–Q

1.2.93 Electronic Equipment Space, 2–15–3–Q

1.2.94 Battery Space, 2–15–4–Q

1.2.95 Void, 2–16–1–V

1.2.96 Void, 2–16–2–V

1.2.97 Void, 2–16–3–V

1.2.98 Stripping Tank, 2–16–4–F

1.2.99 Fuel Tank, 2–16–5–F

1.2.100 Fuel Tank, 2–16–6–F

1.2.101 Fuel Equipment Space, 2–17–1–Q

1.2.102 Fuel Equipment Space, 2–17–2–Q

1.2.103 Compartment, 2–17–3–Q

1.2.104 Compartment, 2–17–4–Q

1.2.105 Floodable Void, 2–18–1–V

1.2.106 Floodable Void, 2–18–2–V

1.2.107 Flotation Void, 2–18–3–V

1.2.108 Flotation Void, 2–18–4–V

1.2.109 Flotation Void, 2–18–5–V

1.2.110 Flotation Void, 2–18–6–V

1.2.111 Flotation Void, 2–18–7–V

1.2.112 Flotation Void, 2–18–8–V

1.2.113 Flotation Void, 2–18–9–V

1.2.114 Flotation Void, 2–18–10–V

1.2.115 Void, 2–19–1–V

1.2.116 Void, 2–19–2–V

1.2.117 Void, 2–19–3–V

1.2.118 Void, 2–19–4–V

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 MIL–STD–777, Schedule of Piping, Valves, Fittings, and Associated Piping Components

2.3 802–5959353 Rev AU, MIL–STD–777 Modified for DDG–51 Class, Schedule of Piping, Valves, Fittings, and Associated Piping Components

2.4 S9086–T8–STM–010/CH–593, Pollution Control

2.5 S9086–SP–STM–010/CH–542, Gasoline and JP–5 Fuel Systems

2.6 MIL–HDBK–291, Military Handbook Cargo Tank Cleaning

2.7 802–5748802 Rev K, Plan View of Each Level, Deck & Platform

3. REQUIREMENTS:

3.1 Open, ventilate, empty, clean, render dry and maintain any tank or space including adjacent tanks, spaces or piping systems where the scope of repairs will result in a need for certification during the performance of this Job Order, use 2.7 for location guidance.

3.1.1 Tanks/spaces listed in 1.2.21 through 1.2.118 are to support inspections by Government inspectors.

3.1.2 Ensure that harmful vapors, fumes, or mists are ventilated to the exterior of the vessel.

3.1.3 Submit one legible copy, in hard copy or electronic media, of a report listing the location, origin, and quantity of each manhole cover removed in 3.1 in respect to its tank, ship’s frame, and distance off centerline to the SUPERVISOR.

3.1.4 Install expandable plugs or blanks, painted blaze orange, in associated tank piping at the first valve or flange. Associated piping is defined as "an assembly of pipe, tubing, valves, fittings and related components forming a whole or a part of a system which starts or terminates in subject area, thus being common to and associated with same."

3.1.4.1 Submit one legible copy, in hard copy or electronic media, of a report listing the location of each expandable plug and blank to the SUPERVISOR.

3.1.4.2 Remove each expandable plug or blank upon completion of repairs and testing, and install new gaskets and fasteners in accordance with applicable Categories and Group of 2.2 or 2.3.

3.1.5 Clean and disinfect each CHT/sewage tank and associated piping in accordance with 2.4.

3.1.6 Clean each tank and any associated piping in accordance with 2.5 through 2.6.

3.2 Steam clean each area where the removal of preservative is required.

3.2.1 Install new rust preventative compound conforming to MIL–PRF–16173, Grade One.

3.2.2 Install new Monel fill and drain plugs conforming to QQ–N–281, Class B, to replace those removed to accomplish steam cleaning.

3.3 Pump tanks containing petroleum products to the low suction level of each tank.

3.3.1 Products shall be run through a flow meter calibrated in gallons.

3.3.2 Off−loading/on−loading of petroleum products shall be accomplished during daylight hours only and no "Hot Work" shall be permitted.

3.3.3 Hoses, pumps, and storage containers shall be clean and dry prior to start of off−loading/on−loading.

3.3.4 Submit one legible copy, in hard copy or electronic media, of completed Attachment A (products inventory) to the SUPERVISOR.

3.3.5 Remove and dispose of liquids not being stored for reuse, including compensating sea water from the compensating fuel tanks, sludge, and debris in accordance with federal, state, and local laws, codes, ordinances, and regulations.

3.3.5.1 Fill the compensating fuel tanks with sea water upon completion of work.

3.4 Take samples of petroleum products from each tank prior to removal from ship and storage.

3.4.1 Accomplish analysis of petroleum products two working days prior to off−loading.

3.4.2 Accomplish a chemical analysis of each sample of distillate fuel and JP−5.

3.4.2.1 Test each sample for flashpoint, using the PENSKY−MAR TENS method. The flashpoint should be in the range specified by 2.5.

3.4.2.2 Measure and record the API Gravity at 60 degrees Fahrenheit.

3.4.2.3 Check the bottom sediment and water, using a centrifuge. For distillate fuel, sediment and water should be less than 0.1 percent. For JP−5, sediment shall not be greater than 8 milligrams per liter and there should be no visible traces of water.

3.4.2.4 Measure the acid number. The acid number shall be within five percent of the original value upon return to ship.

3.4.2.5 Submit one legible copy, in hard copy or electronic media, of results of the analysis of 3.4.2 to the SUPERVISOR.

(V) (G) "VERIFY OFF LOAD COORDINATION"

3.5 Coordinate the off loading or transferring of fluids through the ship’s Damage Control Assistant (DCA), via the SUPERVISOR, to maintain ship’s stability

and to prevent flooding.

3.5.1 Obtain a list from the SUPERVISOR of petroleum soundings for tanks prior to start of pumping operations.

(V) (G) "VERIFY CLEAN CONTAINER"

3.5.2 Off-load petroleum in the following amounts:

3.5.2.1 Distillate fuel (0) gallons

3.5.2.2 JP-5 (0) gallons

3.5.2.3 Lubricating oil (0) gallons

3.6 Off-load and store or off-load and transport to the nearest Naval Fuel Depot (NFD), at the discretion of the contractor based upon cost effectiveness, the distillate fuel and JP-5.

3.6.1 Notify the SUPERVISOR prior to transporting the off-loaded petroleum products.

3.6.2 Deliver to the nearest NFD when directed by the SUPERVISOR. Conveyance will be accepted from 0730 to 1600, Monday through Friday, holidays excluded. The NFD will accomplish a petroleum analysis requiring a time duration of one hour prior to off-loading each conveyance.

3.6.3 Notify the NFD Director a minimum of five working days prior to delivering the off-loaded petroleum products, via the SUPERVISOR.

3.6.4 Submit one legible copy, in hard copy or electronic media, of completed Attachment A, signed by the NFD Director, listing the amount and type of petroleum products received, to the SUPERVISOR within 24 hours after disposition.

3.6.5 Distillate fuel and JP-5 fuel off-loaded and stored by the contractor shall be sampled and analyzed in accordance with 3.4.1 through 3.4.2.4 prior to on-loading.

3.6.5.1 Submit one legible copy, in hard copy or electronic media, of each analysis to the SUPERVISOR prior to on-load.

3.6.6 Provide ship with same type, grade, and quantity of distillate fuel and JP-5 off-loaded and stored, when directed by the SUPERVISOR.

3.7 Off-load and store in clean storage containers the lube oil and hydraulic oil from the tanks. On-load when directed by the SUPERVISOR.

3.7.1 Accomplish the requirements of 009-63 of 2.1.

3.7.1.1 Test and analyze samples from each tank prior to off-loading.

3.7.1.2 Test and analyze samples from each storage container prior to on-loading.

3.8 Clean each bilge of spaces listed in 1.2, free of trash, debris, grease, oily liquids, and other liquid contaminants prior to the initial certification.

3.8.1 Maintain each bilge to a clean, dry condition for the duration of the availability on a 7-day-a-week, 24-hour-a-day basis.

3.8.2 Remove and dispose of an additional 500 gallons of non-hazardous liquids from bilges listed in 1.2, generated by the Navy, after initial cleaning and certification is obtained. Removals shall be measured. Total amount of liquids removed greater or less than the above amount shall be the subject of an equitable adjustment.

(V) (G) "SOURCE DETERMINATION"

3.8.2.1 Submit one legible copy,in hard copy or electronic media, of a report listing the amount of gallons removed in 3.8.2, responsible source of liquids, and date liquids were removed after each pumping operation.

(V) (G) "CLEAN AND DRY BILGES"

3.8.3 Prior to space turnover, when directed by the SUPERVISOR, accomplish a final detergent cleaning of each bilge of spaces listed in 1.2, removing all trash, debris, grease, oily liquids, and other liquid contaminants from the bilges.

3.8.3.1 Remove and install pumping equipment three evolutions after space turnover to support the requirements of 3.8.1 and 3.8.2.

3.9 Clean each chain locker free of silt, mud, and foreign matter.

3.10 Dispose of liquids in accordance with federal, state and local laws, codes, ordinances or regulations.

3.11 Tank Closure Repairs:

3.11.1 Clean, chase, or tap threaded areas prior to installing covers.

3.11.2 Weld up, drill, and tap a total of 4 stripped manhole cover bolting ring holes for tanks opened in 3.1.

3.11.3 Remove existing and install new a total of 4 missing or broken manhole cover studs for tanks opened in 3.1 conforming to MIL-DTL-1222, Type IV, Grade 304.

3.11.4 Accomplish the requirements of 009–12 of 2.1, including Table 2, Column A, Lines One through 7.

3.11.5 Accomplish the requirements of 009–32 of 2.1 for new and disturbed surfaces.

(V) (G) "INSPECT TANK CLEANLINESS"

3.12 Inspect each tank for cleanliness prior to final closing.

3.12.1 Submit one legible copy, in hard copy or electronic media, of a report listing the names of personnel present during inspection to the SUPERVISOR within 72 hours after completion of final closing.

3.12.2 Install manhole cover for each tank, using new gaskets conforming to SAE–AMS–C–6183, Class One, new CRES washers conforming to FF–W–92, Type A, Grade One, Class B, and new brass nuts conforming to MIL–DTL–1222, Type One, Grade 464, and/or CRES hex head cap screws conforming to ASTM A307.

3.12.2.1 Install new gaskets conforming to ASTM D2000–75E, new hex nuts conforming to ASTM A307, and new hex head cap screws conforming to ASTM A307 for DDG–51 Class ships' sewage tanks.

3.12.2.2 Install new gaskets conforming to A–A–55759, Class 3A, Grade 30, and new hex head brass nuts conforming to MIL–DTL–1222, Type I, for DDG–51 Class ships' high temperature compartments.

3.12.2.3 Install new hex head, self–locking nuts (nickel–copper) conforming to NAS–M–25027 for LSD–41 Class ships.

3.12.2.4 Install new cotton wax wicking to studs prior to installing washers and nuts for DDG–51 Class ships.

3.12.2.5 Install new bolts conforming to MIL–DTL–1222, Grade 5, Class 316 (CRES), for flush deck bolted manhole covers.

3.12.3 Install access cover for each potable water, feedwater, and sewage tank, using new gaskets conforming to MIL–PRF–1149, new nuts conforming to MIL–DTL–1222, Type I, Grade 5, zinc coated, and new CRES washers conforming to FF–W–92, Type A, Grade One, Class B.

3.12.4 Confirm that all personnel have exited the space prior to closure of tanks, voids, and cofferdams. Designate one person to account for all personnel who may have entered the space.

3.13 Accomplish the requirements of 009–32 of 2.1 for new and disturbed surfaces.

4. NOTES:

4.1 Location(s) of the Local Naval Fuel Depot(s) receiving off-loaded fuels are is/are available from the SUPERVISOR.

4.2 For the purpose of this Work Item, the term "tank or space" includes voids, cofferdams, and inaccessible or confined areas.

4.3 Consider each bilge to contain contaminated oily salt water.

4.4 Booklet of General Plans and Tank Sounding Tables are available for review at the office of the SUPERVISOR.

4.5 The SUPERVISOR will provide sequence of tanks and dates of inspections referenced in 3.1.1.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.